



**OWNER'S MANUAL  
MODEL NUMBER**

***700713-2 with 17.5 HP Pro engine.***

***700817-1 with 20 HP Commercial engine.***



***BERCO  
ROUGH CUTTER 44"***

- \* ASSEMBLY
- \* OPERATION

- \* REPAIR PARTS
- \* MAINTENANCE

**CAUTION:**

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



# LIMITED WARRANTY

## Conditions and Products Covered:

BERCOMAC guarantees any part of the product or accessory manufactured by BERCOMAC and found in the reasonable judgment of BERCOMAC to be defective in material and or workmanship will be repaired or replaced by an authorized dealer without charge up to our maximum labor rates and pre-established times. For replacement parts only standard ground freight services are covered. This warranty extends to the original retail purchaser only and is not transferable to any subsequent purchasers. This warranty applies to the products bought and used in North America.

## Warranty Period

(from date of the original retail purchase)

- Residential or semi-commercial use: 1 year
- Commercial, industrial 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 residential or semi-commercial use
  - No warranty on other application
- Engines: Will vary as per the manufacturer  
Please refer to the engine manufacturer's warranty statement included with the unit. BERCOMAC is not authorized to handle warranty adjustments on engines.

## Items and Conditions NOT Covered:

This warranty does not cover the following:

- Pick-up or delivery charges or in-home services fees.
- Any damage or deterioration of the unit, parts and or finish of these due to normal use, wear and tear, or exposure.
- Cost of regular use or maintenance service or parts, such as gas, oil, lubricants, tune-up parts, and adjustments.
- Any part or accessory which has been altered, modified, misused, neglected, accidentally damaged or not properly installed, maintained, stored or repaired not in accordance with the instructions in the owner's manual.
- Repair due to normal wear and or any wear items such as shear pins, bolts, belts, winch cable, cutting edge, skid shoes, etc.
- Expedited freight fee services for replacement parts.
- Shear bolts and shear pins are to be considered as a preventive measure not as an assured protection, any damages resulting from the lack of shear bolts breakage are not covered.
- Damages due to product being installed on vehicle other than stipulated in the owner's manual.

NOTE: All warranty work must be performed by an authorized dealer using original (manufacturer) replacement parts.

**NOTE:** Bercomac reserves the right to change or improve the design of any part or accessory without assuming any obligation to modify any product previously manufactured.

## Instructions for Obtaining Warranty Services:

Contact dealer where equipment was purchased or any other BERCO service dealer to arrange service at their dealership. To locate a dealer convenient to you, access our website at [www.bercomac.com](http://www.bercomac.com). Don't forget to bring your proof of purchase (sales receipt) to the BERCO dealer.

## Owner's Responsibilities:

BERCOMAC's defective equipment or part must be returned to an authorized dealer within the warranty period for repairs. In the event that defective merchandise must be returned to manufacturer for repairs, freight fees are prepaid and a written authorization from BERCOMAC must be obtained by dealer prior to the shipment. This warranty extends only to equipment operated under normal conditions. To validate a warranty claim, it is the user's responsibility to maintain and service the unit as specified in the owner's manual or to have the unit serviced at their dealer at their expense.

## General Conditions:

The sole liability of BERCOMAC with respect to this warranty shall be strictly and exclusively repair and replacement as mentioned herein. BERCOMAC shall not have any liability for any other costs, loss or damage, including but not limited to, any incidental or consequential loss or damage.

Taking advantage of the warranty does not in any way extend the length or renewal of the warranty.

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

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

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

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

Bercomac Limitée

92, Fortin North, Adstock, Quebec, Canada, G0N 1S0

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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 to prevent accidents or injuries. These are common practices that may or may not be applicable to the product described in this manual.

### 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. Local regulations restrict the age of the operator. Children are often attracted to accessories. Never assume children will stay in place where you have last seen them. Keep children under surveillance of a responsible adult at all times.
3. No one should operate the vehicle nor the accessory while intoxicated or while taking medication that impairs the senses or reactions. The operator should, if taking over the counter drugs, seek medical advice on whether he/she can safely operate the equipment.
4. Keep the area of operation clear of all people, particularly small children and pets.
5. Never start or operate the accessories except from the operator's station on the power unit except if this is impossible.

### PREPARATION:

1. Thoroughly inspect the area where the accessory is to be used and remove door mats, all foreign objects and the like which could be picked up and projected by accessory.
2. For motorized accessories, disengage all clutches and shift into neutral before starting engine.
3. Prepare for emergencies. Be prepared if a fire starts. Keep first aid kit and fire extinguisher handy. Keep emergency phone numbers (doctor, ambulance, ect) near a phone

4. Do not operate the accessory without wearing adequate clothing and safety equipment. Long hair, loose clothing or jewelry can get caught in moving parts. Wear footwear that will improve footing on slippery surfaces.
5. Handle fuel with care, it is highly flammable and vapors are explosive.
  - a) Extinguish all cigarettes, cigars, pipes and other sources of ignition.
  - b) Use approved fuel container.
  - c) Never add fuel to a running engine or hot engine.
  - d) Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
  - e) 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.
  - f) 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 directly from a gasoline dispenser nozzle.
  - g) 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.
  - h) Never overfill fuel tank. Replace fuel cap securely and wipe up spilled fuel.
  - i) If fuel is spilled on clothing, change clothing immediately.
6. Never attempt to make any adjustments while the engine (motor) is running (except when specifically recommended by manufacturer).
7. Let the vehicle and accessory adjust to outdoor temperatures before using.
8. Never use an accessory without proper guards, plates, or other safety protective devices in place
9. Always make sure to wear the appropriate safety equipment required (glasses, muffs, mask...) for each type of product. See operation section.
10. Always make sure of having safe traction on the vehicle by using the recommended accessories (chains, A.T.V. tracks, counterweights...). See operation section.
11. Always make sure all components are correctly installed. (driveline securely attached and locked at both ends, belts properly installed...)
12. If applicable, always handle the winch cable with thick leather gloves.
13. **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. Do not use equipment until properly repaired.
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 ignition 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, on wet ground or near drop-off. Do not attempt to use accessory on a steep slope.
8. Never tolerate bystanders in the working zone. Never use an accessory in the direction of bystanders, it might throw gravel or debris that can hurt people or damage property.
9. Never operate the accessory at high transport speeds on slippery surfaces. Use care when backing up.
10. Do not carry passengers.
11. Disengage power to the accessory when it is transported or not in use.
12. Never operate the accessory without good visibility or light.
13. Keep the accessory away from heat sources or flames.
14. If applicable, never handle the winch cable or hook while under tension.
15. Never use accessory if it has been dropped or damaged. Repair if necessary before re-using.

### MAINTENANCE AND STORAGE

1. When cleaning, repairing or inspecting the vehicle and accessory: park on a solid level ground, disengage drives, lower implement, set parking brake, stop the engine, remove ignition key, and wait that all moving parts have stopped. For gasoline engine, disconnect wire from the spark plug(s) and keep wire away to prevent accidental starting.
2. Check all the bolts and components at frequent intervals to make sure that they are properly tightened and in safe working condition.
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 clearing snow in order to prevent the rotary parts from freezing.
7. Inspect the vehicle's and accessory's air filter (if applicable) every day. Clean it or replace it as necessary. Change the oil more often when working in dusty conditions. See the vehicle's and accessory's owner's manual.
8. When inflating tires, stand on one side NOT in front or over the tire assembly. Use a safety cage if available

### TRANSPORT

1. Review Transport Safety instructions in vehicle manual before moving or hauling.
2. Check with local authorities regarding transport on public roads and off road. Obey all applicable laws and regulations.
3. Make sure all lights and reflectors that are required by the local highway and transport authorities (example : SMV (Slow Moving Vehicle)) are in place, are clean, and can be seen clearly by all overtaking and oncoming traffic.
4. Never have the equipment in operation during transport.
5. Always travel at a safe speed.



# SAFETY LABELS



REPLACE IF DECALS ARE DAMAGED  
SEE PARTS BREAKDOWN FOR DECAL LOCATION



Decal #107584



To avoid serious injury:  
Keep all parts of the body away from  
moving components.  
Decal #105946



Decal #105128



Decal #107585



## SAFETY LABELS



REPLACE IF DECALS ARE DAMAGED  
SEE PARTS BREAKDOWN FOR DECAL LOCATION



Decal # 108301  
Do not step.

### IMPORTANT

**STALE GAS IS A MAJOR CAUSE OF ENGINE FAILURE**

Gas will become stale if you are storing your power equipment for more than 30 days. Stale fuel can cause engine damage from acid and gum deposits forming in the fuel system or carburetor.

Keep gas fresh by using proper fuel stabilizer.

Read and understand your engine manual for all requirements.

---

**UN CARBURANT ÉVENTÉ EST UNE DES CAUSES PRINCIPALES DES BRIS DE MOTEURS**

Le carburant s'évente lorsqu'il est stocké plus de 30 jours. Un carburant éventé entraîne des dépôts acides et de résidus de gomme dans le système de carburant ou sur des pièces essentielles du carburateur.

Pour conserver le carburant en bon état, utiliser le stabilisateur de carburant adéquat.

Lire et comprendre le manuel d'utilisation de votre moteur pour toutes les exigences.

108261

Decal #108261



# ASSEMBLY

## ASSEMBLY INSTRUCTIONS

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

**NOTE:** In this manual, the right and left side is determined being seated on the driver's seat.

## **INTENDED USE**

The 44" Rough Cutter is designed to clear dense areas of grass and cut saplings in meadows and on small estates. It is not intended to create a finish cut on lawns. Your Rough Cutter should be towed behind an ATV, golf cart, lawn tractor or other approved vehicle with the help of a 2" (50mm) reach ball hitch. It is not recommended for speeds exceeding 5 mph (8 km/h) .

Remove all the components from the shipping crate except the assembled rough cutter in order to help with the assembly.



## **WARNING**

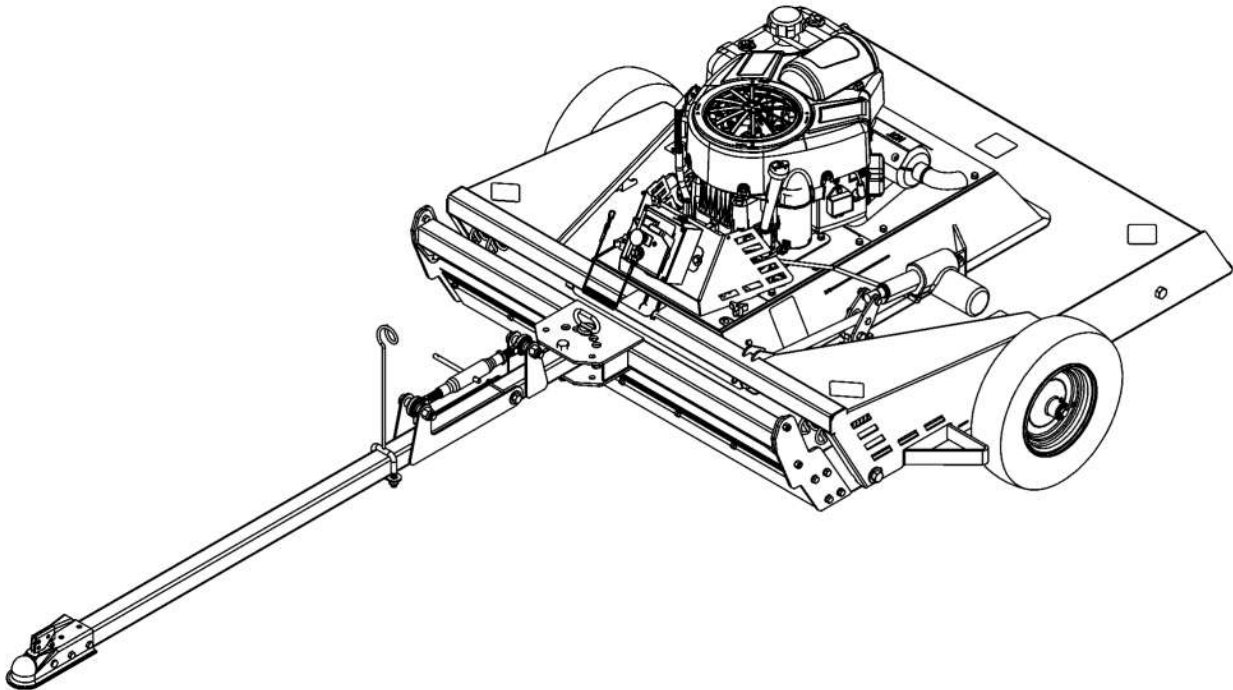


### **THIS ACCESSORY IS HEAVY!**

To avoid risk of strain injury, **NEVER** lift the accessory by hand alone when handling the components or assembly. Use proper lifting device and seek assistance.

When accessory is off the ground, **NEVER** be underneath the accessory. Serious injury including possibility of death could occur if accessory were to drop suddenly.

Always wear protective shoes and appropriate gloves when manipulating or using this equipment.



Overall view

### **Tools needed:**

Ratchet

Wrench: 7/16", 1/2", 9/16", 3/4", 15/16"

Socket : 7/16", 1/2", 9/16", 3/4", 15/16", 3/8"

Pliers



Always make sure to wear the appropriate safety equipment required (glasses, muffs, mask...).

# ASSEMBLY

## STEP 1 ENGINE AND BATTERY PREPARATION

Disengage spark plug wire(s) and place it where it cannot make a connection.

Add oil in the engine. Verify oil level and add if necessary before starting engine. (See engine owner's manual).

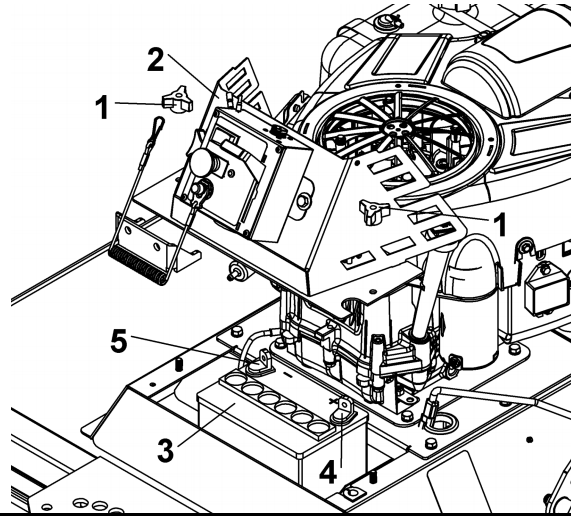
### U1 battery must be purchased locally:

Check the battery. If the battery is put into service after the "month and year" of the date on the battery, it may need to be charged with a 12 volt battery charger. Follow the manufacturer's instructions for the battery or for the battery charger.

Remove knobs (item 1) and the guard assembly (item 2).

Put the battery (item 3) in place.

Attach battery cables to the battery, making sure to attach the red wire to the positive terminal (item 4) first and the black wire to the negative terminal (item 5) second.



## WARNING



**TO PREVENT INJURY OR DAMAGE:**  
It is very important to place the protective cover onto the battery's red terminal post.

## STEP 2 ROUGH CUTTER ASSEMBLY

### A) PRE-INSTALLATION OF SPRINGS

Install the hex nut 3/8" n.c. (item 1) onto the 4 eye bolts completely to the end of the threads.

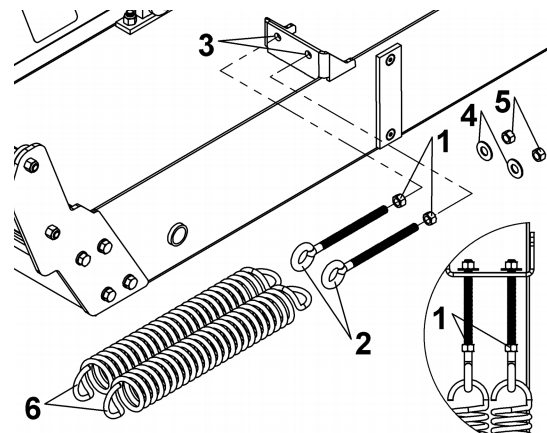
Install the eye bolts in the holes indicated on the rough cutter assembly (item 3).

Insert the flat washer 7/16" hole (item 4) and tighten loosely in place with 4 hex nut 3/8" n.c. (item 5).

Position the springs (item 6) with the end which is not inserted. In the eyebolts points upwards to facilitate installation to the equipment.

Insert the springs (item 6) in the eyebolts (item 2).

Do not tighten eyebolts (item 2) yet.



## CAUTION



**PINCH POINT**  
**TO PREVENT INJURIES:**  
Manipulate with caution.

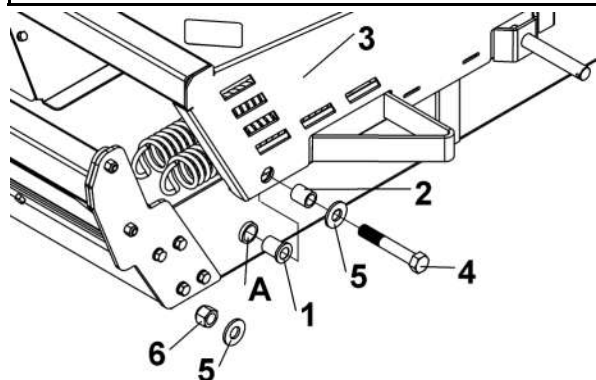
### B) AXLE SUPPORT INSTALLATION

Remove the assembled rough cutter from the shipping crate so that you have access to hole "A" over the rough cutter. If necessary, lift the rough cutter with a jack and secure with axle stands. Make sure the rough cutter is stable and secure at all times to prevent injuries.

Insert the bushing (item 1) in the hole (item A) on each side.

Insert the sleeve (item 2) in the axles support (item 3).

Install the axles support (item 3) with two hex. bolts 5/8" n.c. x 4" (item 4), four flat washers 7/16" hole (item 5) and two nylon Insert lock nuts 5/8" n.c. (item 6) as shown.



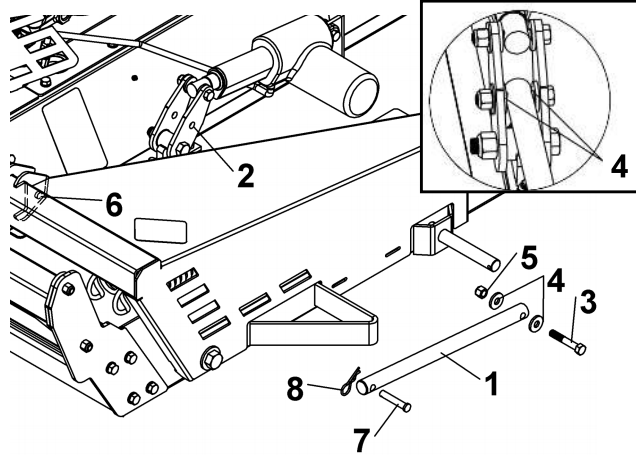
# ASSEMBLY

## C) LIFT LINK INSTALLATION

Install one end of the lift link (item 1) on the lift lever (item 2) of the rough cutter using the hex. bolt  $3/8"$  n.c. x  $2 1/4"$  (item 3), the washers (item 4) and one nylon insert lock nut  $3/8"$  n.c.(item 5). Install the two spacers (item 4) as shown to center the lift link (item 1) between the two lift levers.

Slightly tighten the nut.

Install the other end of the lift link (item 1) on the axles support (item 6) by inserting the pin (item 7) into the hole and secure with hair pin 2.5mm (item 8).



## D) INSTALLATION OF THE SPRINGS

TIP : Use a cable, hook or nylon tie wrap to extend the springs.

Extend the springs (items 1) one at a time to install them into the slots on the axles support (item 2).

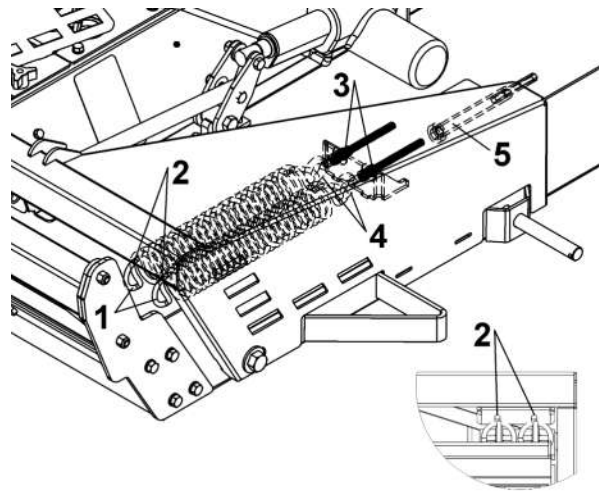
Tighten hex. nut  $3/8"$  n.c. (item 3) on eye bolts (item 4) using the special socket  $9/16"$  (item 5).

**NOTE:** Activate the lift mechanism of the cutter to better position the axles support.

For instructions see section « OPERATION »  
« FAMILIARIZATION WITH THE CONTRÔL BOX ».

**NOTE:** When the cutter is not resting on the ground on its wheels, the actuator's rod may be retracted by the spring load. This may happen with an unoperated actuator.

If this happens, the axles support will not be in the best position to tighten the nuts (item 3). The solution will then be to tighten these once the cutter is resting on the ground on its wheels.

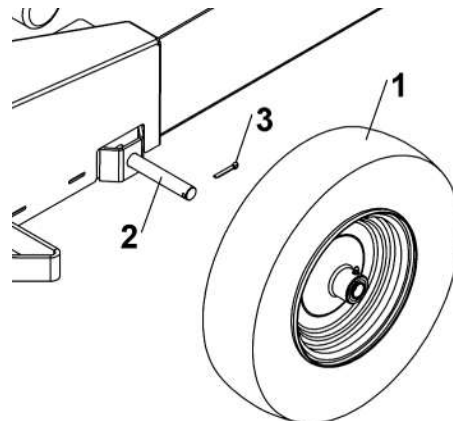


## E) WHEEL INSTALLATION

**NOTE:** Activate the rough cutter lift system to have a better access with the axles support (item 2) and ease the wheel installation.

Install the wheels assembly (item 1) on the axles support (item 2) and secure with the cotter pin  $3/16"$  x  $1-1/2"$  (item 3).

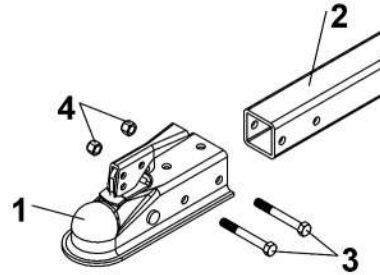
TIP: Once the wheels are installed, activate the lift system will help to remove the shipping crate from under the rough cutter.



# ASSEMBLY

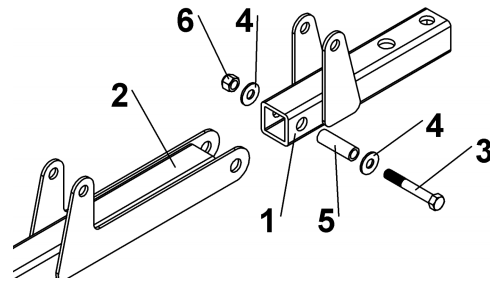
## F) REAR HITCH ASSEMBLY

1) Install the hitch (item 1) to the intermediate hitch bar (item 2) using two hex. bolts 3/8" n.c. x 3" (item 3) and two nylon insert lock nuts 3/8" n.c. (item 4).



2) Install the rear hitch bar (item 1) on the intermediate hitch bar (item 2) with one hex. bolt 1/2" n.c. x 3 1/2" (item 3) two flat washers 1/2" hole (item 4), the sleeve (item 5) and one nylon insert lock nut 1/2" n.c. (item 6).

Do not tighten firmly as to let the hitch pivot.

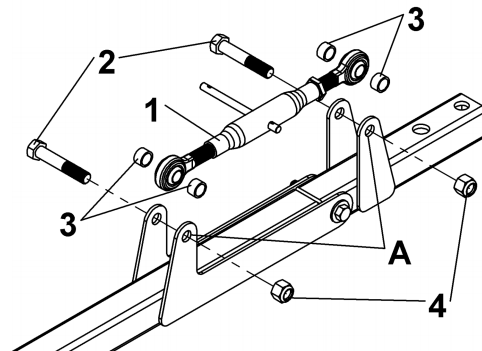


### CAUTION

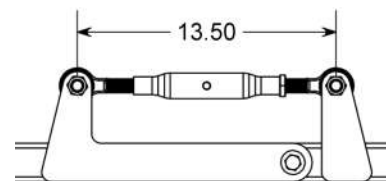


**PINCH POINT  
TO PREVENT INJURIES:**  
Manipulate with caution.

3) Install the top link (item 1) to the hitch bars (item A) using two hex. bolts 5/8" n.c. x 3 1/2" (item 2), four sleeves (item 3) nylon insert lock nut 5/8" n.c. (item 4).

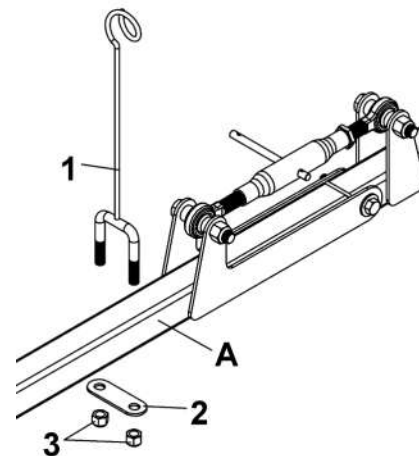


4) Adjust the top link (item 1) to 13 1/2 inches center to center.



5) Install the cable holder (item 1) on the intermediate hitch bar (item A) with the U-bolt and plate (item 2) and two nylon insert lock nuts 1/2" n.c. (item 3).

**NOTE:** Position the cable holder near the top link. You may re-adjust this location to avoid any interference with the control cables while towing vehicle is in motion.





# ASSEMBLY

## G) TOW BAR INSTALLATION

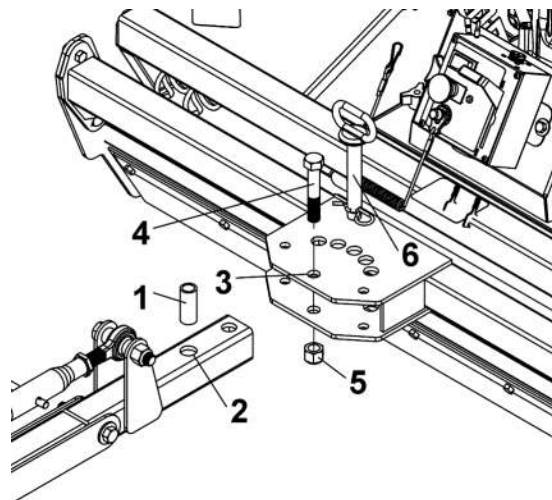
Insert the sleeve (item 1) into the corresponding hitch bar hole (item 2).

Align holes and install, as shown, the hitch bar assembly (item 2) with the sleeve on the rough cutter assembly (item 3) using a hex. bolt 5/8" n.c. x 3 1/2" (item 4) and a nylon insert lock nut 5/8" n.c. (item 5).

Finally, secure the position of the hitch bar with the pin with hair pin 4mm (item 6).

See "ADJUSTMENT" section to select the proper hitch bar orientation for the application.

Reconnect the spark plug cable(s).



## STEP 3 INSTALLATION ON THE VEHICLE

**A 2" (50mm) BALL HITCH IS REQUIRED ON THE TOWING VEHICLE.**

Back the vehicle up to desired towing position.

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

**NOTE:** Correct adjustment will allow the handle to be released with moderate pressure applied to the handle.



To open, pull up on hitch coupler handle and rotate forward.

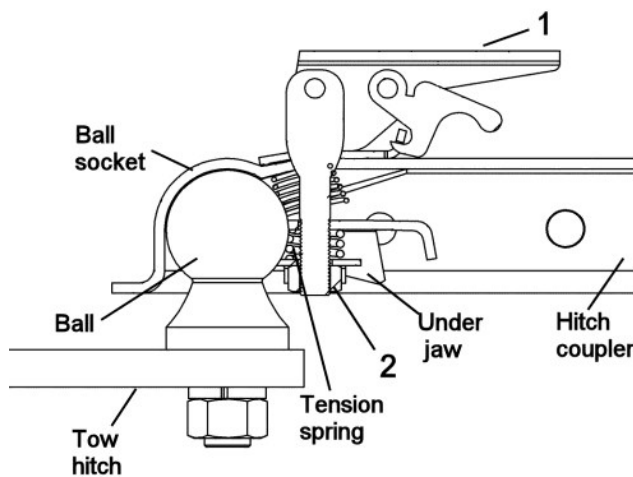
Place hitch coupler on ball.

When ball is completely nested in socket, rotate hitch coupler handle backward until handle is in locked position.

Always check tightness before using the tow hitch. Lock the handle (item 1) into position over the ball in the hitch coupler. Tighten the lock nut (item 2) against the spring so that the hitch coupler is not loose on the ball.

Be sure hitch coupler handle is in locked position.

	<b>WARNING</b>	
<b>TO PREVENT INJURIES:</b> Always check that ball is completely inserted into hitch coupler socket and that under jaw is securely closed around the bottom of ball. Always check that hitch coupler handle is properly locked before its use. Always examine hitch coupler and ball for damage before using, replace if damaged.		



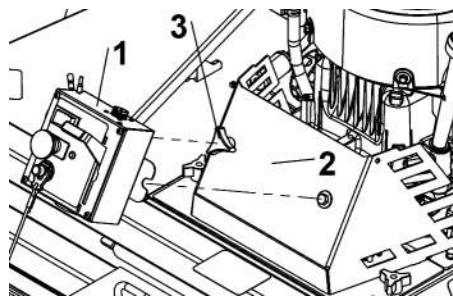
Adjusting the hitch coupler

# ASSEMBLY

## STEP 4 CONTROL BOX INSTALLATION

- 1) Remove control box (item 1) from guard (item 2) by loosening the knob (item 3).

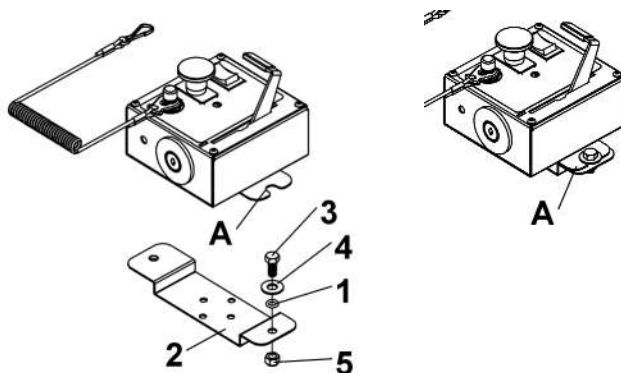
TIP: Replace the knob on guard and tighten securely to avoid loss of knob due to vibration while in use.



- 2) Install the o-ring (item 1) on the box support (item 2) using hex. bolt 5/16" n.c. x 3/4" (item 3), flat washer 3/8" hole (item 4) and nylon insert lock nut 5/16" n.c. (item 5).

Do not over tighten o-ring.

Use the slot (item A) on the control box to avoid over tightening and to make sure it is well inserted.



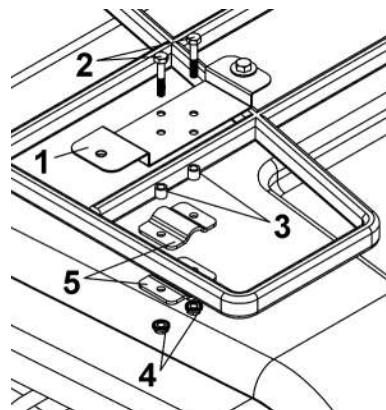
- 3) Choose between the two ways of installing the control box support (item 1).

**NOTE:** In order to prevent damage due to water accumulation, make sure to place the control box horizontally.

### Option A

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

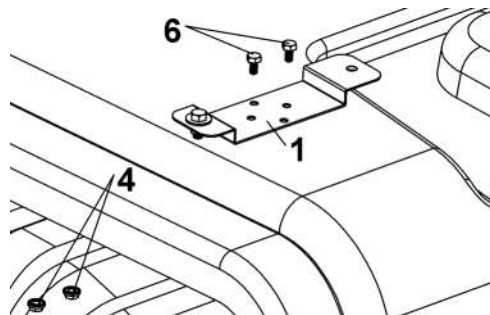
**NOTE:** Choose the right hole combination on the control box support in order to orient the front of the control box towards the driving controls of the vehicle. (see operation section to see how control box is oriented), Furthermore, make sure to have free access at all times to the equipment's controls in order to safely control the equipment.



### Option B

Drill two holes of 1 9/16" apart on the vehicle. Secure the control box support with two bolts 1/4" x 1/2" (item 6) and two flange nuts 1/4".

Insert the control box in the control box support.

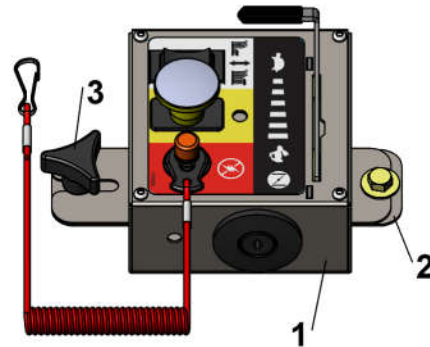


# ASSEMBLY

## INSTALL THE CONTROL BOX IN ITS SUPPORT

Put the control box (item 1) in its support (item 2).

Secure on place with the knob (item3).



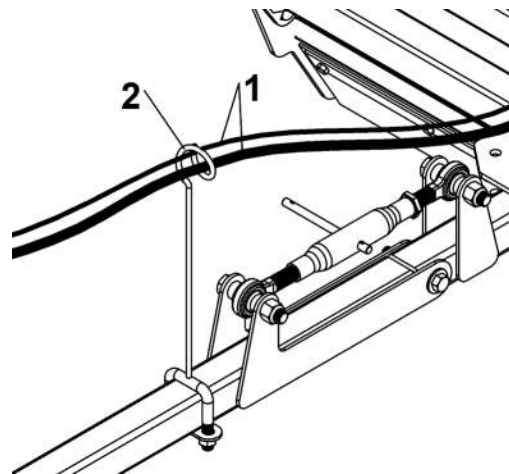
## SECURE CABLES.

Insert the cables (item 1) through the opening of the cable holder (item 2).

**IMPORTANT :** Be careful to secure the cables to avoid any damage caused by a contact with the vehicle, equipment itself (especially engine exhaust) or any other object that can be found in the area of these cables.

Attach the electrical cable and the engine control cable to the equipment and to the vehicle, if necessary use cable ties.

**Do not forget :** the control box must be easily removable from vehicle.



If needed, re-adjust the position of the cable support (item 2) to avoid any interference with the control cables while towing vehicle is in motion.

**IMPORTANT:** Before operating this equipment proceed with all the adjustments required in section « Adjustments ».

# OPERATION

## OPERATOR'S RESPONSIBILITY

Hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training involved in the operation, transport, storage and maintenance of the Rotary Cutter. Therefore, it is absolutely essential that no one operates the Rotary Cutter without first having read, fully understood and become totally familiar with the operator's Manual. Make sure the operator has completed the operating Check list below.

## SAFETY INFORMATION

### WEAR YOUR SAFETY GLASSES



### FORESIGHT IS BETTER THAN NO SIGHT

Always make sure to wear the appropriate safety equipment required (glasses, muffs, mask...).

The operation of any mower can produce foreign objects to be thrown into the eyes, resulting in severe eye damage.

Always wear certified safety glasses or wide-vision safety goggles over spectacles before starting any cutting machine and while operating such a machine.



The operation of any mower produces sound waves that are damaging to the human ear. Ear protection is recommended.



<b>DANGER</b>
Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the equipment and the mowing activity. <b><i>Never assume that children will remain where you last saw them.</i></b>
<b>DANGER</b>
ALWAYS OPERATE FROM THE DRIVER'S SEAT AND ALWAYS INSTALL ON YOURSELF THE EMERGENCY SWITCH LANYARD THAT IS LINKED TO THE CONTROL BOX. <b><u>NEVER OPERATE WITHOUT THIS LANYARD .</u></b>
<b>DANGER</b>
<b>TO PREVENT INJURIES:</b> <b>Never place</b> hands or feet under the deck or attempt to make adjustments to the cutter with ELECTRIC CLUTCH engaged. Cutter blades rotating at high speeds cannot be seen and are located close to the deck housing. Body extremities can be cut off instantly.
<b>DANGER</b>
<b>TO PREVENT INJURIES:</b> Do not use cutter as a fan. Cutting blades are not properly designed or guarded for this use. Using cutter as a fan can result in injury or death.

<b>DANGER</b>
<b>TO PREVENT INJURIES:</b> <b>Keep others away</b> while cutter is operating. <b>It can discharge objects at high speeds.</b> Therefore, the use of front and rear safety guards is strongly recommended when cutting along highways and in areas where people may be present. Stop blade rotation if a bystander is within at least <b>300 feet</b> .
<b>WARNING</b>
<b>TO PREVENT INJURIES:</b> <b>Never allow riders</b> including children on the vehicle or cutter. They can fall and be ran over causing serious injury or death.
<b>DANGER</b>
<b>TO PREVENT INJURIES:</b> Do not operate and/or travel across <b>steep inclines</b> where a vehicle can rollover resulting in serious injury or death. Consult your vehicle's manual for acceptable inclines the vehicle is capable of traveling across. Never operate on slopes of more than 15 degrees.
<b>DANGER</b>
<b>TO PREVENT INJURIES:</b> All guards and shields must be installed and in good working condition at all times during cutter operation.

# OPERATION

## FAMILIARIZATION WITH THE CONTROL BOX

	WARNING	
<p><b>Read the vehicle's owner's manual carefully. Be thoroughly familiar with the controls &amp; proper use of the attachment. Know how to stop the unit &amp; disengage the controls quickly.</b></p>		

	WARNING	
<p><b>TO PREVENT INJURIES:</b> Always disengage electric clutch, engage parking brake, shut off vehicle, remove ignition key, and wait for all moving parts to come to a complete stop before dismounting from vehicle.</p>		

**Item 1: Ignition switch.**

Using the key: Allows to start the engine or you may turn the key to the accessory setting to activate the controls without starting the engine. The light (item 7) is on when the key is turned to the accessory or start setting.

Always remove the key when the equipment is left without surveillance.

**Item 2: Throttle lever**

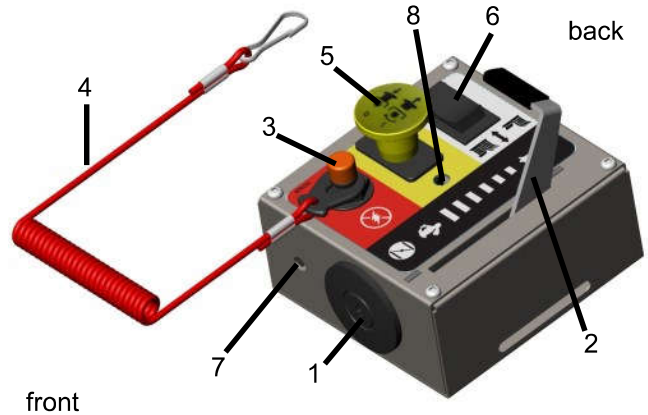
Push towards the front to increase engine speed, push completely to the end to "start"



**Item 3: Emergency switch**

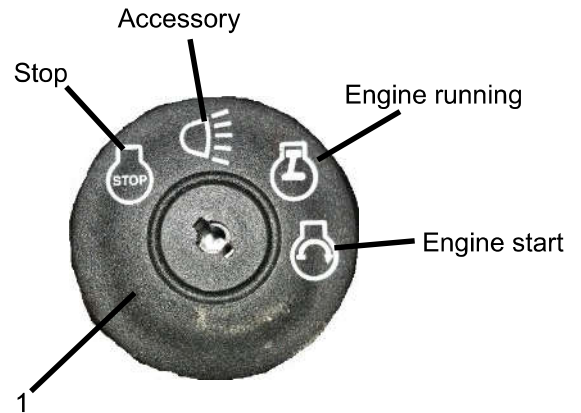
Push to stop equipment quickly.

**Item 4: Safety lanyard:**

Links the operator to the control box. If the operator leaves the driver's seat without stopping the equipment, the equipment will stop (the cable will disconnect itself from the control box).



	WARNING	
<p><b>It is a possibility that in certain cases, the safety lanyard may be too long and will not function properly due to where the control box is installed on the vehicle and where the lanyard is attached to the operator.</b></p> <p><b>IT IS THE OPERATOR'S RESPONSIBILITY</b> To make sure that the lanyard is well installed so the equipment stops when the operator leaves the seat.</p> <p><b>IF REQUIRED:</b> Shorten the lanyard making sure it retains its original and adequate resistance.</p>		



**Item 5: Engagement switch**

Pull to engage, push to disengage the electric clutch. The light (item 8) is on when equipment is engaged.

**Item 6: Height adjustment switch.**

Allows to adjust the cutting height.

# OPERATION

## BEFORE FIELD OPERATION:

### INSPECT VEHICLE

Vehicle must respect the maintenance specifications as per the owner's manual.

Inspect vehicle safety equipment to make sure it is installed and in good working condition.

### ENGINE PREPARATION

See engine manufacturer's recommendations for the type and amount of oil and fuel used.

Make sure the tow vehicle parking brake is set, mower is level, and blades are disengaged. Engine must be level to accurately check and fill oil. Do not overfill.

⇒ Check spark plug wire(s), oil, and fuel.

Check all electrical connections for debris buildup .

Opérer le moteur selon les instructions du manuel du moteur.

### ADJUST CUTTER

Before operating equipment refer to section « Adjustment » and proceed with adjustments.

### ADJUST TIRE PRESSURE

Verify and adjust tire pressure as indicated directly on tire of the equipment. Pressure must be even in both tires.

### PRE-INSPECTION OF VEHICLE & CUTTER

Make the following inspections with cutter attached to a vehicle, ELECTRIC CLUTCH disengaged, and all moving components completely stopped:

Park vehicle and cutter on a level surface.

Inspect cutter safety equipment to make sure it is installed and in good working condition.

With cutter resting on solid supports, ELECTRIC CLUTCH disengaged, and blade rotation completely stopped:

- Make sure there is nothing under the cutter that should not be there.
  - ⇒ (tools, block, feet, hands, etc.)
- Check for and remove foreign objects wrapped around blade spindles.
- Check for nicked, bent, broken, and worn cutting blades.
  - ⇒ Replace or sharpen blades as required. Refer to "Cutter Blade Maintenance".
- Remove solid supports from under the deck.

### INSPECT WORK AREA

Make sure the work area corresponds to the intended use of this equipment and is safe to work within.

**Do not cut in wet conditions.** Allow wet grass to dry. Wet grass will clump and collect under the mowing deck. Wet material will build up on the deck underside creating poor discharge and high wear. It will also require additional horsepower.



## WARNING



### **TO PREVENT INJURIES:**

Clear area to be cut of debris and other unforeseen removable objects before cutting. Mark any potential hazards that cannot be removed such as tree stumps, post, rocks, holes, and drop-offs with a visible flag.



## WARNING



### **TO PREVENT INJURIES:**

Do not operate cutter with loose hardware. Loose hardware can result in a breakdown causing serious injury or death.



## WARNING



Loose blades can easily pierce a ¼" steel plate.

Loose blades can also be thrown up to 300 feet.

### **TO PREVENT SERIOUS INJURIES, DEATH AND MATERIAL DAMAGE:**

**Periodically (and after a full day) disengage ELECTRIC CLUTCH**, shut down engine, remove key, and :

- **Check** for foreign objects wrapped around the rotor shaft.
- Block cutter deck up before removing objects.
- Frequently **inspect** cutter for any sign of wear or loose bolts and nuts (especially the stump jumper and the blade bolts).
- **Tighten** as indicated in the Torque specification table.
- Make sure all guards are in place at all times.



## CAUTION



### **TO PREVENT INJURIES:**

Do not exceed rated cutting capacity of your cutter (see « **INTENDED USE** » section) .



## WARNING



### **TO PREVENT INJURIES:**

Do not use cutter to lift or carry objects; to pull fence posts, stumps or other objects; or to tow other equipment. Doing so can damage the cutter, cause serious injury or death.



# OPERATION

## STARTING THE ENGINE, INSPECTIONS AND BURNISHING THE CLUTCH



### WARNING



#### TO PREVENT INJURIES:

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



### WARNING



#### TO PREVENT INJURIES:

Stop ELECTRIC CLUTCH immediately if vibration continues after a few evolutions during start-up and anytime thereafter. Wait for all moving parts to come to a complete stop before dismounting from vehicle to check for probable causes. Make necessary repairs and adjustments before continuing.

## STARTING THE ENGINE

Before starting to work, sit on the driver's seat and always install on yourself the emergency switch lanyard that is linked to the control box.

**NOTE:** Do not attempt to start the unit with engagement knob pulled up in the "ENGAGED" position.

#### Using the control box, follow these steps:

- Set the throttle lever on the control box to "START" position.
- Turn key to the "ACCESSORY" setting, then to the "START" setting.
- Set throttle lever to minimum RPM.
- Allow engine to idle a few moments before engaging the blades.

## BLADE ENGAGEMENT & DISENGAGEMENT

The remaining inspections are made by engaging the blades to check for vibrations.

Cutter blades can lock-up against each other during start-up and shut-down.

Following Blade Engagement and Blade Disengagement instructions below will help eliminate blade lock up.

### BLADES (ELECTRIC CLUTCH) ENGAGEMENT

a) Make sure the engine is running at idle or slightly above.

b) While engine is running at idle, engage the blades by pulling up the engagement switch.

**NOTE:** Initial start-up vibration is normal and should stop after a few revolutions.

c) Once cutter is running smoothly, slowly increase engine speed.

**IMPORTANT:** After ramping up to engine full throttle, ensure that rough cutter is not vibrating excessively for at least 3 seconds.

#### **IMPORTANT:**

If excessive vibrations continue after 3 seconds at full engine speed, disengage the blades immediately, shut down engine, and remove switch key.

- ⇒ Check blades for a lock-up situation. Block cutter deck up before working under the unit. Unlock blades, remove support blocks, and repeat "Blade Engagement" instructions.

### BLADES (ELECTRIC CLUTCH) DISENGAGEMENT

a) Slowly decrease throttle speed until engine idle speed is reached.

b) Then, push down the engagement switch to disengage the blades.

c) Engage vehicle park brake, shut vehicle engine off, and remove switch key. Stay on vehicle until blades are completely stopped.

## BURNISHING PROCEDURE

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

1. Make sure the blades are free of any obstruction. Start the engine.
2. Engage electric clutch.
3. Disengage electric clutch and wait for all moving parts to stop.
4. Repeat procedure (steps 2 & 3) 10 times within 30 seconds intervals to avoid overheating the clutch which may result in damage.

# OPERATION

## BRAKING YOUR CUTTER'S BELT & FIELD OPERATION

### BREAKING IN YOUR CUTTER'S BELT

- Set the vehicle parking brake and chock the wheels.
- With the engine running at minimum rpm, slowly engage the blades.
- In a safe environment, (i.e. no children or pets) allow blades to rotate and engine to idle for 5 minutes, breaking in the belt for a longer life.
- Stop cutter.

### STOPPING THE ENGINE

- Make sure the tow vehicle parking brake is set.
- Disengage cutting blades.
- Reduce engine to idle speed and allow engine to run momentarily for cooling.
- Turn the key to the "OFF" setting.

### STARTING TO CUT

- Adjust the cutting height using the height adjustment switch on the control box.
- Double check that cutter is well attached to vehicle.
- Always follow the "starting the engine" instructions on the preceding page, start the rough cutter engine.
- Engage the blades following the instructions on the preceding pages.
- Start mowing at a slow travel speed.

### IMPORTANT DURING FIELD OPERATION

Do not use equipment driving backwards. Your cutter is equipped with **free swinging cutting** blades to reduce shock loads when striking obstacles. However, it is best to avoid striking obstacles to extend cutter and blade life.

**Periodically disengage ELECTRIC CLUTCH**, turn off engine, remove key & check for objects wrapped around blade spindle. Block deck up before removing objects.

**Frequently inspect cutter** for loose bolts and nuts. Tighten all loose hardware as indicated in the Torque specification table.

### STOPPING THE CUTTING SESSION

- Bring tow vehicle to a complete stop, set the parking brake and disengage blades.
- Turn key switch to the "OFF" setting.
- Always remember to remove keys to avoid accidental start or irresponsible usage.

### TRANSPORTING CUTTER

- Stop Trail Cutter.
- Place Trail Cutter deck in its highest position.
- See section « Transportation » to transport equipment securely.

### SUGGESTED CUTTING PRACTICES

#### **Maintain correct engine speed.**

- **Loss of engine speed** will allow blades to swing back resulting in ragged, uneven cutting.
- **Correct engine speed** will assure the best cutting performance and maximum material discharge.
- **Excessive engine speed** will increase the vibrations and the risk to cause faster damage to the power train components.

#### **After the first 50 feet of cutting:**

- Stop traveling and disengage the electric clutch.
- Check cutter levelness and cutting height to make certain it is adjusted properly.

#### **Optimum ground speed:**

- It depends on density of material being cut and terrain.
- The rough cutter should be started with tow vehicle at low seep and increased only as safe mowing conditions permit. **Cutting speed should not exceed 5 mph (8 km/h).**
- Optimum ground speed may vary between **2 to 5 mph** (3 to 8km/h) to allow the cutter to make a smooth cut without lugging the engine down.

Cutting conditions and the types of grass or brush will vary from place to place. You may find when cutting dense areas that the pressure of the wheel tracks may cause the grass to be pushed down and not effectively mowed. If this happens you may want to mow the area twice. Once with the cutter raised and the second cutting at the desired height. The second cutting should be at a right angle from the previous for best results.

Reducing the travel speed will help cut dense growth. This allows the blades the time necessary to make its initial cut, and regain momentum to continue cutting and discharging debris properly. The engine may stall if you are mowing too fast!

Do not attempt to cut areas that the tow vehicle cannot maneuver through and/or slopes that you do not feel comfortable riding.



# ADJUSTMENTS



## WARNING



**STOP THE ENGINE AND DISCONNECT THE SPARK PLUG CABLE(S) BEFORE DOING ANY ADJUSTMENTS ON THE ROUGH CUTTER.**

### FRONT TO BACK ADJUSTMENT

For best cutting results, the cutter deck should be parallel to the ground. To check parallel adjustment, measure the distance from the bottom edge of the deck in both the front and rear of the deck. This adjustment is best done while the tow vehicle and Rough Cutter are attached together.

Adjust as needed using the adjustment screw of top link (item 1)

### CUTTER HEIGHT ADJUSTMENT

There is approximately 4" of height adjustment.

Adjust the height with the knob for the height control on the control box.

Dense areas should be cut in two pass.

### TOW HITCH OFFSET

Offset the cutter to the side opposite the discharge of the tow vehicle

It is recommended if the tow vehicle is equipped with a mid-mount mower to overlap the cut approximately 6". This may vary depending on mowing terrain, obstacles, and/or tow vehicle. Always keep safety the first priority.

Always keep the tow vehicle cutter raised higher than the Trail Cutter.

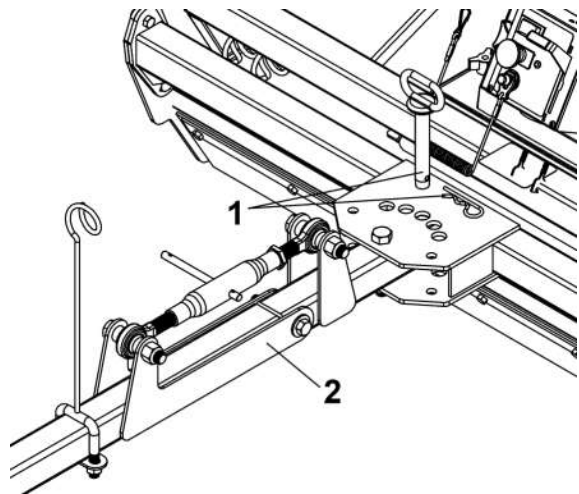
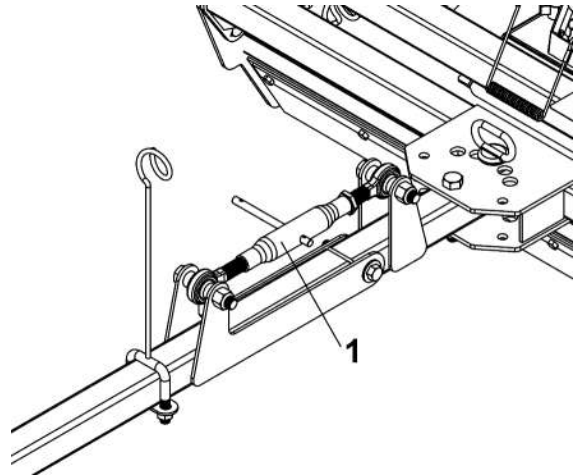
#### **To offset:**

Remove pin with hair pin 4mm (item 1).

Angle hitch bar (item 2) to align with appropriate hole.

Lock in place by inserting pin with hair pin 4mm desired hole.

- ⇒ Verify that the rear hitch bar of the equipment does not come into contact with the wheels of the vehicle.



# MAINTENANCE

## **ALWAYS PRACTICE SAFE MAINTENANCE**

Proper servicing and adjustment is the key to the long life of any attachment. Careful and systematic inspection can avoid costly downtime, maintenance, and repairs.

Never allow untrained personnel to service machine.

Always understand the procedures before doing any work.

Use the proper tools and equipment, .

Use jack to support equipment when required.

Carefully release pressure from equipment with stored energy.

Check all bolts after using the unit for several hours to be sure they are tight. Replace any worn, damaged, or illegible safety labels by obtaining new labels from your dealer.

Check for damage of the protective structures as guards and replace damages parts as necessary.

Do not alter the cutter in a way which will adversely affect its performance.

Refer to the engine's manual & vehicle's manual for additional information.



Always make sure to wear the appropriate safety equipment required (glasses, muffs, mask...).

## **ENGINE MAINTENANCE**

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

## **ATTACHMENT MAINTENANCE**

Check mounting bolts at frequent intervals for proper tightness in order to prevent costly repairs. Make sure your attachment is in safe working condition.

## **BEFORE EACH SEASON**

A new spark plug and clean air filter assure proper air fuel mixture and help your engine run better and last longer.

- Replace the spark plug.
- Clean or replace the air filter.
- Check blades and belts for wear. If wear is detected, please replace.

## **BEFORE EACH USE**

- Check engine oil level. Do this twice to ensure an accurate reading.
- Check condition of air filter and clean or replace if necessary.
- Check blade operation.
- Check for loose fasteners, if so, please tighten.
- **Verify and adjust the pressure** of the tires of the rough cutter. The tire pressure must be even on both sides. Do not exceed the maximum inflation pressure shown on the tire sidewall.

## **DAILY MAINTENANCE**

- Make sure all nuts and bolts are tight and cotter pins and retainer springs are secure.
- Keep blades sharp.
- Observe all safety precautions.



## **DANGER**



**Before proceeding with any maintenance, assembling or dismounting:**

- Disengage.
- Stop the rough cutter engine and remove the ignition key.
- Park vehicle and cutter on a level surface.
- Set the parking brake.
- **Make sure all moving parts have stopped.**
- Disconnect the wire from the spark plug(s) and keep away from spark plug(s) to prevent accidental starting.



## **WARNING**



**TO PREVENT INJURIES:**

Do not use deck as a working platform. The deck is not properly designed or guarded for this use. Using deck as a working platform could cause serious injury or death.



## **DANGER**



**TO PREVENT INJURIES:**

Always secure cutter deck in the up position with solid supports before servicing underside of cutter.

## **GENERAL RECOMMENDATIONS**

The warranty on this rough cutter does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain unit as instructed in this manual.

Some adjustments will need to be made periodically to maintain your unit properly.

# MAINTENANCE



## CAUTION



### **DO NOT HANDLE CUTTER BLADES WITH BARE HANDS.**

Careless or improper handling may result in serious injury.

### **BLADE CARE AND SERVICE**

For best results cutter blades must be kept sharp (see “Sharpening blades”).

#### **Important:**

Always inspect cutting blades before each use. Make certain they are properly installed and are in good working condition. **Replace any blade that is damaged, worn, bent, or excessively nicked.** Small nicks can be ground out when sharpening.

Blades must be replaced in mating pairs. Not replacing both blades will result in an out-of-balance condition that could contribute to premature bearing wear/breakage and/or structural cracks in gearbox and/or deck.

**Important:** Check blade and spindle hardware on a regular basis to make sure nuts are tight.

#### **Blade installation:**

Carefully check cutting edges of blades in relation to blade carrier rotation to ensure correct blade placement. Blade rotation is clockwise. Airfoil (lift) must be oriented towards the top of the deck.

To install a blade, put in place the blade (item 1) with a bolt 3/4 x 2-1/4 grade 8 (item 2) making sure to place the shim (item 3) between the blade and the stump jumper (item 4). Put some extra strong locktite on the threads of the stump jumper. Tighten the bolt (item 2) by hand until the blade can not move freely. Then loosen 1/8 turn. Firmly hold in place the position of the bolt and the stump jumper. Secure the assembly by putting some extra strong locktite on the bolt and inserting the nylon insert lock nut 3/4", (item 5). **Torque according to the torque specification table.**

If the bolt and the stump jumper are not held in place before tightening; there is a risk that the bolt will tighten up and will lock the blade rotation.

After installation the blade must rotate freely. If not this will cause vibrations that can cause damages or even injuries.

Before using the equipment again, follow the necessary waiting period according to the locktite manufacturer's instructions.



## WARNING



### **TO PREVENT INJURIES:**

Do not operate cutter with blades that are bent, out of balance, excessively worn, excessively nicked, or with blade bolts that are excessively worn. **Such blades can break loose from the cutter at high speeds** causing serious injury or death.

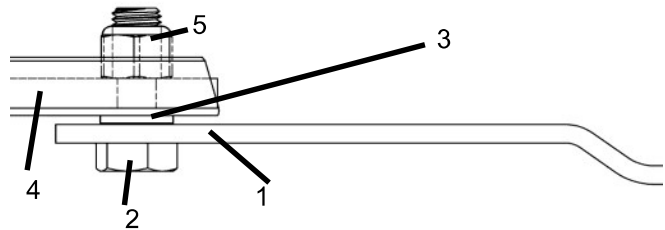
#### **Sharpening blades:**

The blades can be sharpened with a few strokes of a file or grinding wheel.

**DO NOT ATTEMPT TO** sharpen while on the rough cutter.

Both blades should be sharpened at the same angle as the original cutting edge and must be replaced or re-ground at the same time to maintain proper balance. When sharpening blades:

- Do not remove more material than necessary.
- Do not heat and pound out a cutting edge.
- Do not grind blades to a razor edge. Leave a blunt cutting edge approximately 1/16" thick.
- Always grind cutting edge so end of blade remains square to cutting edge and not rounded.
- Do not sharpen back side of blade.
- Both blades should weigh the same after sharpening  $\pm 1 \frac{1}{2}$  oz ( $\pm 0.1$  lbs).



#### **IMPORTANT:**

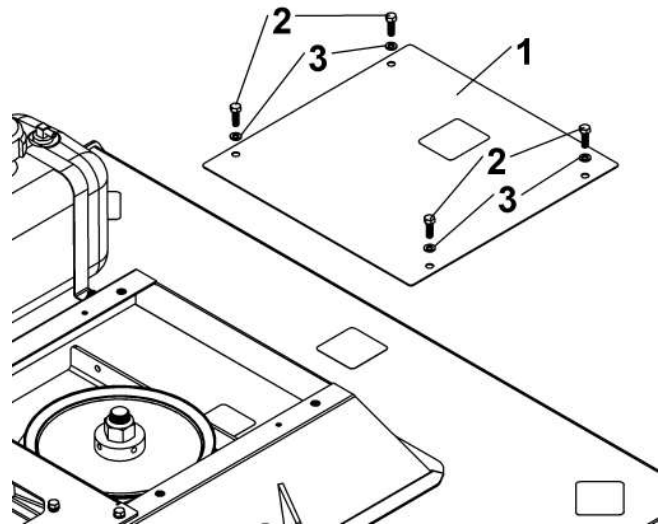
- Examine blade bolts and lock washers for excessive wear and replace if worn.
- Locknuts can loose lock property once removed.
- Always use a new nylon insert lock nut** when installing blades.

# MAINTENANCE

## BELT REPLACEMENT

Use a V belt B-47 (#107354) as a replacement belt.

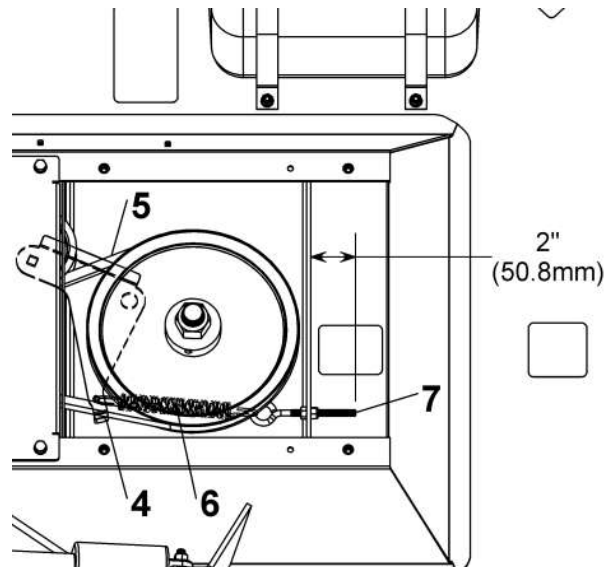
1. Remove the belt guard (item 1) by removing the four hex. bolts 5/16" n.c. x 1" (item 2) and four lock washer 5/16" (item 3);
3. Raise the tensioner (item 4) to remove the tension on the belt (item 5);
4. Remove the old belt and install the new one;
5. Reapply the tension on the belt by lowering the tensioner;
6. Make sure the flat idler tensioner pulley is properly aligned on the pulley.
7. Reinstall the belt guard with four hex bolts 5/16" n.c. x 1" (item 2) and four lock washer 5/16" (item 3).



## BELT TENSION ADJUSTMENT

If the belt becomes too stretched, it is possible to change the position of the spring (item 6) on the tensioner.

To do so, turn the eyebolt (item 7) as to extend it farther than the original length by 2 inches.



# MAINTENANCE

## **IMPORTANT TIGHTENING TORQUES:**

In order to prevent costly repairs, check mounting bolts at frequent intervals for proper tightness. Make sure your attachment is in safe working condition.

Before each use, verify the tightening torques mentioned below.

## **IMPORTANT:**

Unless otherwise specified, torque all bolts according to torque specification table (see table of contents). Refer to parts breakdown section for part identification.

## **Engine base:**

Place the extra strong thread locker on the ten hex. bolts 5/16" n.c. x 1" GR5 (**item A&B**) and tighten them with the following torque:

- 20.5 lbs-ft (246 lbs-in)

## **Electric clutch:**

Tighten the hex. bolt 7/16" n.f. x 1 1/2" GR5 (**item C**) with the torque below:

- 45 lbs-ft

## **Hub assembly :**

Place the extra strong thread locker on the hex. bolts 1/2" n.f. x 2" GR8 (**item D**) of the hub and tighten the four nylon insert lock nuts with the following torque:

- 120 lbs-ft

## **Pulley and blades assembly:**

Place the extra strong thread locker on the threads of the hub and tighten them with the two nylon insert lock nut 1" n.c. (**item E**) using the following torque:

- 325-350 lbs-ft

## **Blades :**

Place the extra strong thread locker on the bolts (**item F**) and the stump jumper thread (**item F**).

Using a vise, immobilize the stump jumper to keep it from rotating. Tighten the nylon insert lock nuts 3/4" (**item F**) against the stump jumper (without restraining the blades from rotating) with the torque below:

- 200 lbs-ft

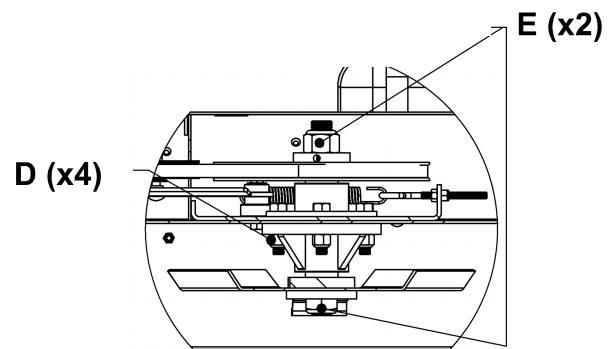
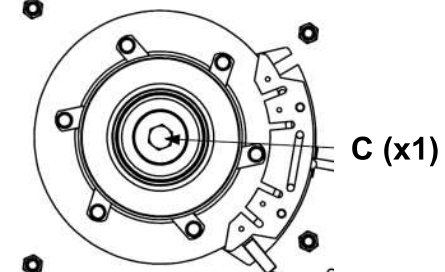
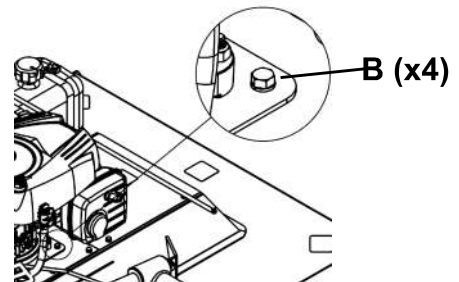
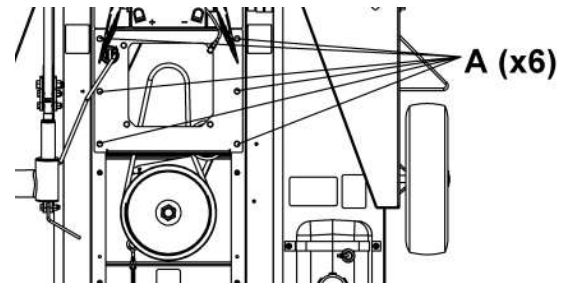


## **WARNING**



### **TO PREVENT INJURIES:**

Do not operate cutter with loose hardware. Loose hardware can result in a breakdown causing serious injury or death.



## TRANSPORTATION

### TO TRANSPORT:

- Always **disengage ELECTRIC CLUTCH** and shut down engine, before raising cutter to transport position.
- Raise cutter to transport position.

When transporting the equipment without towing it behind a vehicle, disconnect the wire from the spark plug(s) and keep away from spark plug(s) to prevent accidental starting.

### **IMPORTANT:**

- Reduce vehicle ground speed when turning and leave enough clearance so cutter does not contact obstacles such as buildings, trees, or fences.
- When traveling on roadways, transport in such a way that faster moving vehicles may pass you safely.
- Reduce speed when traveling over rough or hilly terrain.
- Always look down and behind, before and while driving backwards.
  - ⇒ Verify that the rear hitch bar of the equipment does not come into contact with the wheels of the vehicle.



## DANGER



### **TO PREVENT INJURIES:**

Do not operate and/or travel across **steep inclines** where a vehicle can rollover resulting in serious injury or death.

Consult your vehicle's manual for acceptable inclines the vehicle is capable of traveling across.

Never operate on slopes of more than **15 degrees**.



## WARNING



### **TO PREVENT INJURIES:**

When traveling on public roads, use accessory lights, SMV sign, clean reflectors, and other adequate devices to warn operators in other vehicles of your presence. Always comply with all federal, state, and local laws.

## DISMOUNTING AND STORAGE

### TO DISMOUNT:

1. Shut off the rough cutter's engine
2. Select a level surface, set the parking brake, stop the engine and remove the ignition key to prevent accidental starting.
3. Remove the control box from the vehicle and replace it on the battery guard of the equipment.
4. Detach the equipment from the vehicle by removing the rear ball hitch.

### LONG TERM STORAGE

1. Clean off any dirt and grease that may have accumulated on the cutter and moving parts. Scrape off compacted dirt from the bottom of deck and then wash surface thoroughly with a garden hose. A coating of oil may also be applied to the lower deck area to minimize oxidation.
2. Check blades and blade bolts for wear and replace if necessary. See "Cutter Blade Maintenance" section.
3. Inspect cutter for loose, damaged, or worn parts and adjust or replace as needed.
4. Repaint parts where paint is worn or scratched to prevent rust.
5. Replace all damaged or missing decals.
6. Follow instructions in the owner's manual of the engine.
7. Store cutter on a level surface in a clean, dry place. Inside storage will reduce maintenance and make for a longer cutter life.



# TROUBLESHOOTING

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



## CAUTION



**IF PROBLEMS PERSIST, REFER TO A QUALIFIED MECHANIC TO INSPECT EQUIPMENT. NEVER ATTEMPT ANY ADJUSTMENT WHICH YOU ARE NOT ASSURED OF GETTING THE PROPER RESULTS, THIS COULD RESULT IN FURTHER DAMAGES OR PROBLEMS.**

PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
<b>Excessive Vibration</b>	Blades are not free to turn.	Check installation (see blade maintenance section).
	Blades are out of balance.	Check blades for damage or replace
<b>Unusual Noise</b>	Loose blade bolts or worn bushings or pivoting element.	Tighten bolts, check for wear element and change as needed.
	Bent stump jumper.	Replace stump jumper.
	Deck bent causing blades to hit.	Straighten deck.
<b>Poor Cutting</b>	Not maintaining proper engine speed.	Operate at proper engine speed.
	Improperly adjusted.	Adjust according to operator's manual.
	Operation speed is too fast for blade speed.	Coordinate operation speed with blade speed.
	Dull blades.	Sharpen blades.
	Improper clutch adjustment.	Adjust clutch according to manual.
<b>Rough cutter streaking</b>	Cutting too high, leaving wheel tracks.	Reduce cutting height and operation speed.
	Not maintaining proper RPM speed.	Maintain proper RPM speed.
	Operation speed too fast.	Slow down.
<b>The unit is not cutting level.</b>	Deck is not level.	Level the deck.
	Flat tire.	Check air pressure of both tires; make sure they are equal. See tires for maximum inflation.
	Improperly installed blades.	Without the engine running, make certain blades are installed identically.
<b>Cutter bounces excessively while towing.</b>	Too high pressure in tires.	Decrease tire pressure.
	Moving too fast.	Tow at a lower speed.
<b>Engine runs poorly.</b>	Throttle cable not properly adjusted.	Check adjustment of the throttle.
	Stale fuel	Replace fuel, clean fuel filter and fuel line. Use proper fuel stabilizer
	Poor ignition	Check spark plug and gap.

# TROUBLESHOOTING

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

PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
<b>Accessory stops turning.</b>	Belt is probably damaged or broken	Check and replace damaged belt
<b>Belt is snapping, shredding, burning or worn in a specific place</b>	Accessory was engaged when clogged	Make sure the blades are not clogged before engaging.
	Lack of tension on the belt	Adjust the tensioner spring or replace spring if stretched.
<b>Belt shows premature wear</b>	Not the original belts	Always use the original belts
	Worn belt, Belt may be worn causing a slack.	Inspect the belt. Replace if required.
	Imperfections in the pulleys	Verify if the pulleys are damaged. Verify that the pulleys are smooth without rust spots. Sand down the pulleys or
	Interference	Make sure that the belt does not come into contact with any other part, bolts, guides etc... when engaged.
<b>Accessory digs into ground.</b>	Ground is too soft.	Do not cut in wet conditions. Allow wet grass to dry.
<b>The engine does not start</b>	The emergency button is pushed down.	The emergency button must be pulled up to start the engine of the accessory.
	Low voltage.	Turn key switch to the "OFF" position, check battery and all other electrical connections and inspect spark plug and wires.
	The electromagnetic clutch is activated	Deactivate the electromagnetic clutch.
	Other reasons.	See engine's manual Contact engine manufacturer or authorized and qualified mechanic.
<b>Electric clutch slips</b>	Low battery voltage.	Recharge vehicle's battery.
	Lack of power supply.	Check wires and replace damaged wiring.
	Clutch basket is contaminated.	Clean plates with brake cleaner.
<b>Electric clutch is noisy or vibrates abnormally.</b>	Mounting bolts are loose.	Tighten or replace bolts.
	Certain clutch components may be damaged.	Repair or replace damaged components.



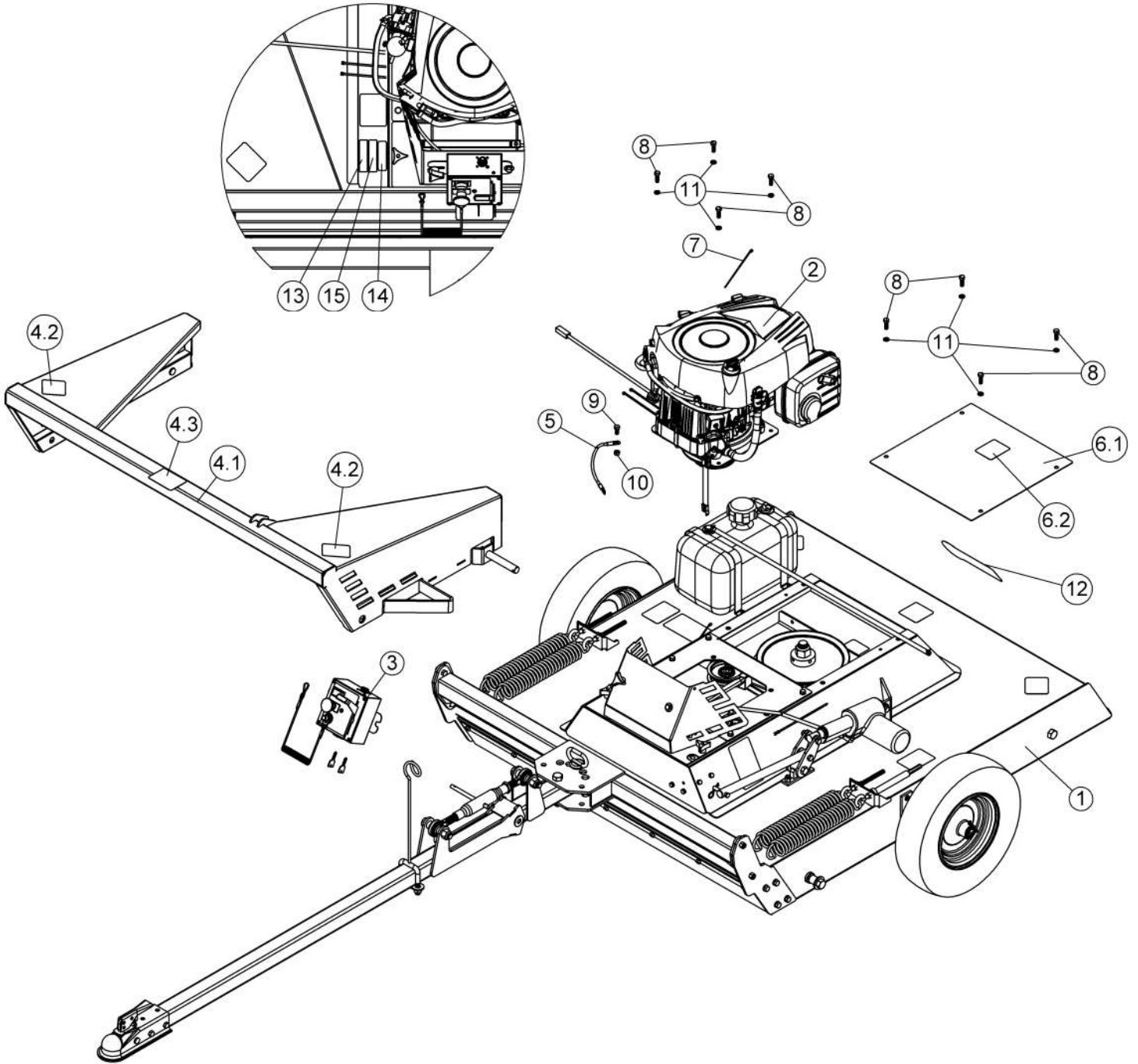
# TROUBLESHOOTING

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

PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
<b>Actuators don't hold charge.</b>	New actuators.	It may be necessary to 100-200 lifts before the actuators hold their charge due to internal lubrication.
<b>Actuators run backwards</b>	Switch wires reversed.	Recheck wiring.
	Battery wires reversed.	Recheck wiring.
<b>Actuators (or one) will not operate</b>	Ignition switch is at OFF position.	Turn ignition switch at ON position.
	Broken wires or bad connection.	Check for poor connections.
	Control switch is inoperative.	Replace control switch.
	Relay or breaker is damaged.	Replace the relay or breaker.
	Actuators are damaged.	Replace or repair actuators.
<b>Actuators run but with insufficient power or line speed.</b>	Weak battery.	Recharge or replace battery. Check charging system.
	Poor battery connection.	Check battery terminals for corrosion. Clean when required.
	Actuators are damaged.	Replace or repair actuators.

HOW TO KNOW	POINTS TO CHECK
<b>Actuators are damaged.</b>	The ultimate test is to connect the actuators directly to the battery and reverse the wires to test both directions. If the actuators don't work, they are damaged.
<b>The breaker is damaged.</b>	Check the resistance with multimeter on both terminals of the breaker. If no contact, replace the breaker. (Sometimes, it could take a few minutes for the breaker to automatically reset itself).

**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
 Débroussailleuse 44" avec moteur Pro 17.5 CV #700713-2  
 Rough cutter 44" with Pro engine 17.5 HP #700713-2



**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
**Débroussailleuse 44" avec moteur Pro 17.5 CV #700713-2**  
**Rough cutter 44" with Pro engine 17.5 HP #700713-2**

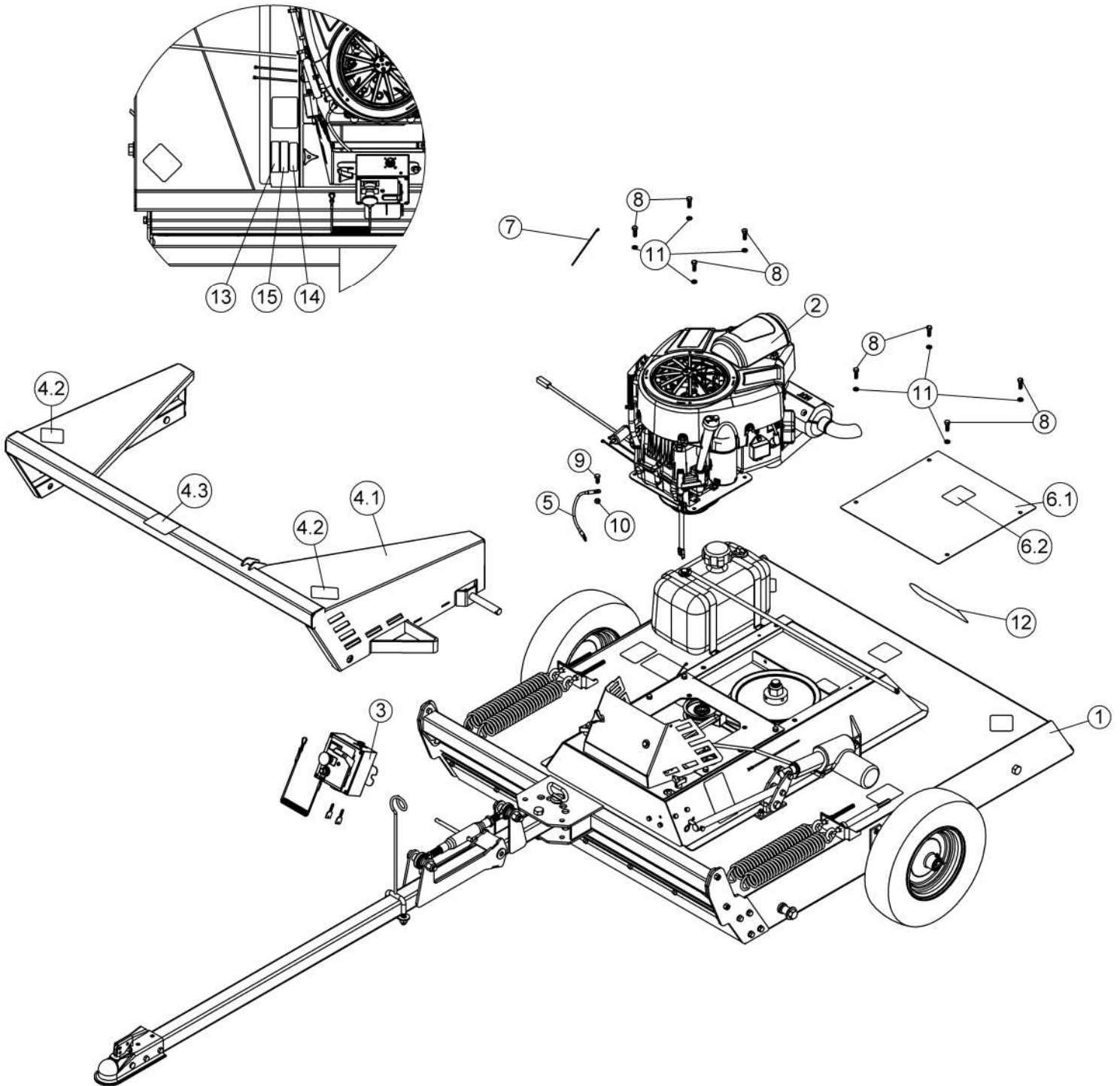
REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Rough cutter 44"	Débroussailleuse 44"	1	501381
2	Briggs Pro engine 17.5 HP with clutch	Moteur Briggs Pro 17.5 CV avec embrayage	1	501328
3	Control box assembly with cable	Boîte de contrôle assemblée avec câble	1	501336
4	Axles support #108227-Y02 w/ safety decals	Support d'axes #108227-Y02 a/ déc. de séc.	1	108292-Y02
4.1	Axles support	Support d'axes	1	108227-Y02
4.2	Mower projection decal	Decalque projection tondeuse	2	107584
4.3	Decal pinch point	Décalque point de pincement	1	105946
5	Wire assembly	Fil assemblé	1	107491
6	Cover #107350 with safety decal	Couvercle #107350 a/ déc. de séc.	1	107587
6.1	Cover	Couvercle	1	107350
6.2	Decal danger belts	Decalque danger courroies	1	105128
7	Tie wrap 8"	Attache de nylon 8"	1	O/L (426-8)
8	Hex. bolt 5/16" n.c. x 1" GR5	Boulon hex. 5/16" n.c. x 1" GR5	8	O/L (300NC.5P_5-16x1)
9	Hex. bolt 5/16" n.c. x 3/4" GR5	Boulon hex. 5/16" n.c. x 3/4" GR5	1	O/L (300NC.5P_5-16x3-4)
10	Nylon Insert lock Nut 5/16" n.c. GR5	Écrou à garniture de nylon 5/16" n.c. GR5	1	O/L (335NC.P_5-16)
11	Lock washer 5/16"	Rondelle de blocage 5/16"	8	O/L (362.P_5-16)
12	Berco decal	Décalque Berco	1	102471
13	EPA decal	Décalque EPA	1	REF.
14	Made in Canada decal	Décalque Fabriqué au Canada	1	REF.
15	Serial number	Numéro de série	1	REF.

O/L = Obtain Locally / Obtenir localement

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**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
**Débrousailluse 44" avec moteur commercial 20 CV #700817-1**  
**Rough Cutter 44" with 20 HP Commercial engine #700817-1**



**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
**Débroussailleuse 44" avec moteur commercial 20 CV #700817-1**  
**Rough Cutter 44" with 20 HP Commercial engine #700817-1**

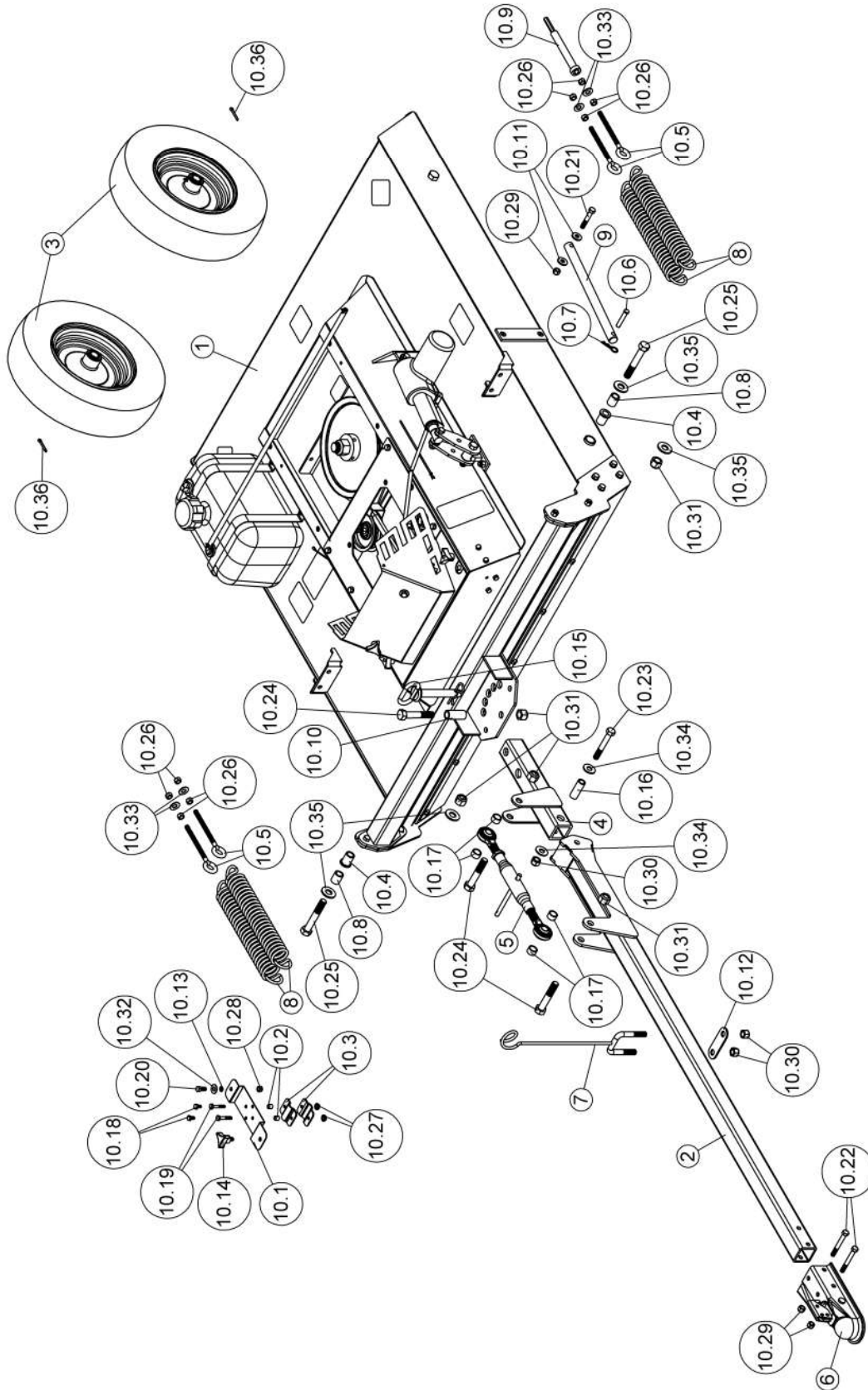
REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Rough cutter 44"	Débroussailleuse 44"	1	501381
2	Briggs M40 20 HP engine with clutch	Moteur Briggs M40 20 CV avec embrayage	1	501326
3	Control box assembly with cable	Boîte de contrôle assemblée avec câble	1	501337
4	Axles support #108227-Y02 w/ safety decals	Support d'axes #108227-Y02 a/ déc. de séc.	1	108292-Y02
4.1	Axles support	Support d'axes	1	108227-Y02
4.2	Mower projection decal	Decalque projection tondeuse	2	107584
4.3	Decal pinch point	Décalque point de pincement	1	105946
5	Wire assembly	Fil assemblé	1	107491
6	Cover #107350 with safety decal	Couvercle #107350 a/ déc. de séc.	1	107587
6.1	Cover	Couvercle	1	107350
6.2	Decal danger belts	Decalque danger courroies	1	105128
7	Tie wrap 8"	Attache de nylon 8"	1	O/L (426-8)
8	Hex. bolt 5/16" n.c. x 1" GR5	Boulon hex. 5/16" n.c. x 1" GR5	8	O/L (300NC.5P_5-16x1)
9	Hex. bolt 5/16" n.c. x 3/4" GR5	Boulon hex. 5/16" n.c. x 3/4" GR5	1	O/L (300NC.5P_5-16x3-4)
10	Nylon Insert lock Nut 5/16" n.c. GR5	Écrou à garniture de nylon 5/16" n.c. GR5	1	O/L (335NC.P_5-16)
11	Lock washer 5/16"	Rondelle de blocage 5/16"	8	O/L (362.P_5-16)
12	Berco decal	Décalque Berco	1	102471
13	EPA decal	Décalque EPA	1	REF.
14	Made in Canada decal	Décalque Fabriqué au Canada	1	REF.
15	Serial number	Numéro de série	1	REF.

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**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
**Débrousailluse 44" #501381**  
**Rough cutter 44" #501381**



**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
**Débroussailleuse 44" #501381**  
**Rough cutter 44" #501381**

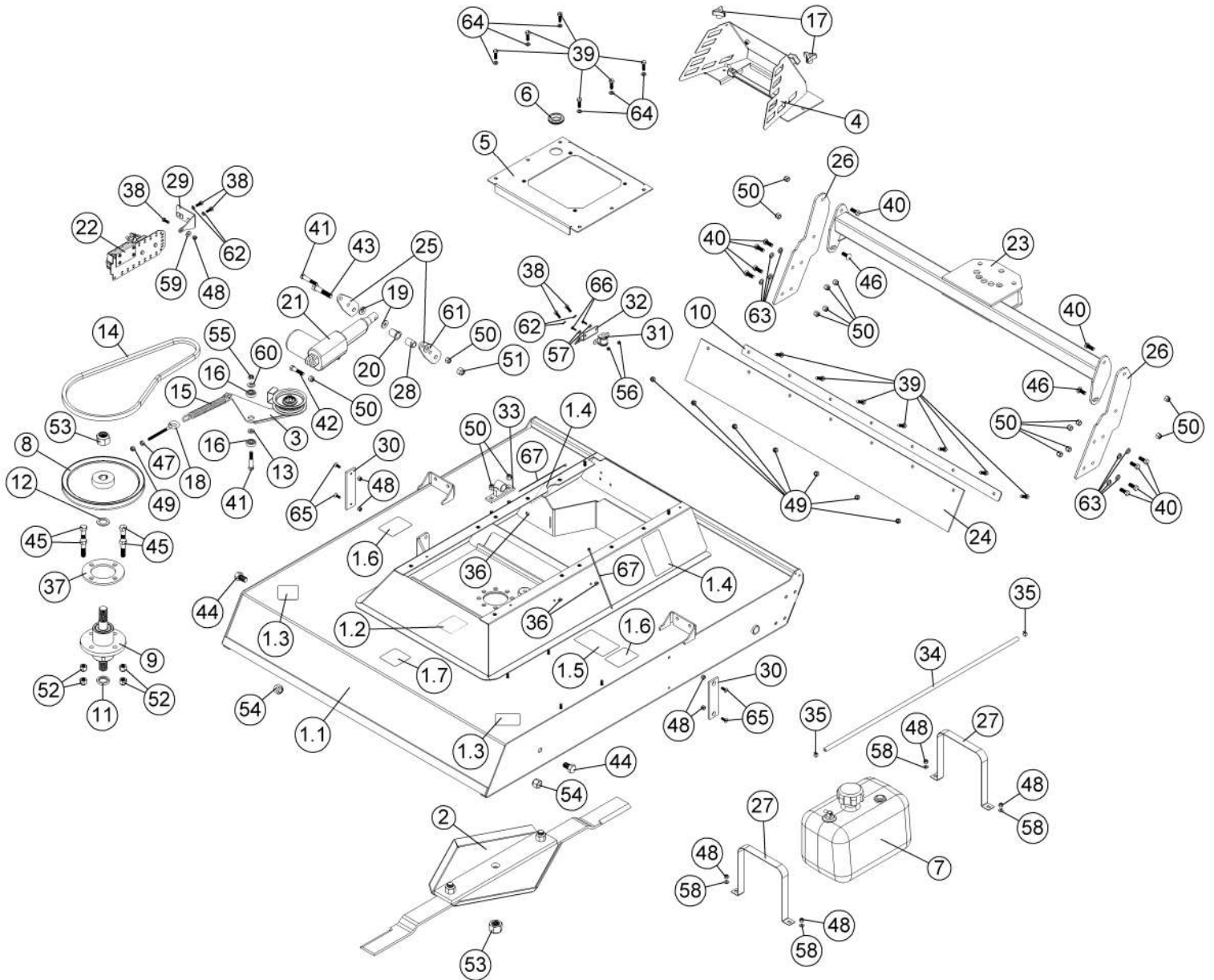
REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Rough cutter assembly	Débroussailleuse assemblée	1	501382
2	Front hitch bar	Barre d'attache intermédiaire	1	108558
3	Wheel assembly	Roue assemblée	2	107275
4	Rear hitch bar	Barre d'attache arrière	1	108223
5	Top link	Lien supérieur	1	107356
6	Hitch	Attache	1	106130
7	Cable holder	Support de câble	1	108285
8	Spring	Ressort	4	102918
9	Link	Lien	1	108254
10	Hardware bag	Sac de quincaillerie	1	108563
10.1	Box support	Support de la boîte	1	108256
10.2	Spacer	Espaceur	2	103368
10.3	Support bracket	Fixation du support	2	103068
10.4	Bushing	Coussinet	2	107361
10.5	Eye bolt	Boulon à oeillet	4	108237
10.6	Pin	Goupille	1	103580
10.7	Hair pin 2.5mm	Goupille à ressort 2.5mm	1	102013
10.8	Sleeve	Douille	2	108252
10.9	Special socket 9/16"	Douille spéciale 9/16"	1	108253
10.10	Sleeve	Douille	1	108224
10.11	Washer	Rondelle	2	106982
10.12	U-bolt plate	Plaque pour boulon en U	1	108286
10.13	O-Ring	Anneau d'étanchéité	1	108313
10.14	Knob	Bouton	1	106861
10.15	Pin with hair pin 4mm	Goupille avec goupille à ressort 4mm	1	106736
10.16	Sleeve	Douille	1	108559
10.17	Sleeve	Douille	4	107486
10.18	Hex. bolt 1/4" n.c. x 1/2" GR5	Boulon hex. 1/4" n.c. x 1/2" GR5	2	O/L (300NC.5P_1-4x1-2)
10.19	Hex. bolt 1/4" n.c. x 1 1/2" GR5	Boulon hex. 1/4" n.c. x 1 1/2" GR5	2	O/L (300NC.5P_1-4x1-1-2)
10.20	Hex. bolt 5/16" n.c. x 3/4" GR5	Boulon hex. 5/16" n.c. x 3/4" GR5	1	O/L (300NC.5P_5-16x3-4)
10.21	Hex. bolt 3/8" n.c. x 2 1/4" GR5	Boulon hex. 3/8" n.c. x 2 1/4" GR5	1	O/L (300NC.5P_3-8x2-1-4)
10.22	Hex. bolt 3/8" n.c. x 3" GR5	Boulon hex. 3/8" n.c. x 3" GR5	2	O/L (300NC.5P_3-8x3)
10.23	Hex. bolt 1/2" n.c. x 3 1/2" GR5	Boulon hex. 1/2" n.c. x 3 1/2" GR5	1	O/L (300NC.5P_1-2x3-1-2)
10.24	Hex. bolt 5/8" n.c. x 3 1/2" GR5	Boulon hex 5/8" n.c. x 3 1/2" GR5	3	O/L (300NC.5P_5-8x3-1-2)
10.25	Hex. bolt 5/8" n.c. x 4" GR5	Boulon hex 5/8" n.c. x 4" GR5	2	O/L (300NC.5P_5-8x4)
10.26	Hex. nut 3/8" n.c.	Écrou hex. 3/8" n.c.	8	O/L (330NC.P_3-8)
10.27	Flange nut 1/4" n.c.	Écrou à bride 1/4" n.c.	2	O/L (334NC.P_1-4)
10.28	Nylon Insert lock Nut 5/16" n.c. GR5	Écrou à garniture de nylon 5/16" n.c. GR5	1	O/L (335NC.P_5-16)
10.29	Nylon Insert Lock Nut 3/8" n.c.	Écrou à garniture de nylon 3/8" n.c.	3	O/L (335NC.P_3-8)
10.30	Nylon Insert lock Nut 1/2" n.c.	Écrou à garniture de nylon 1/2" n.c.	3	O/L (335NC.P_1-2)
10.31	Nylon Insert lock Nut 5/8" n.c.	Écrou à garniture de nylon 5/8" n.c.	5	O/L (335NC.P_5-8)
10.32	Flat washer 3/8" hole	Rondelle plate 3/8" trou	1	O/L (360.P_3-8T)
10.33	Flat washer 7/16" hole	Rondelle plate 7/16" trou	4	O/L (360.P_7-16T)
10.34	Flat washer 1/2" hole	Rondelle plate 1/2" trou	2	O/L (360.P_1-2T)
10.35	Flat washer 11/16" hole	Rondelle plate 11/16" trou	4	O/L (360.P_11-16T)
10.36	Cotter pin 3/16" x 1-1/2"	Goupille fendue 3/16" x 1-1/2"	2	O/L (375.P_3-16X1-1-2)

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**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
**Débrousailleuse assemblée #501382**  
**Rough cutter assembly #501382**





**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
**Débroussailleuse assemblée #501382**  
**Rough cutter assembly #501382**

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Frame #108225 with safety decals	Châssis #108225 a/ déc. de sécurité	1	108226
1.1	Frame	Châssis	1	108225
1.2	Decal danger belts	Decalque danger courroies	1	105128
1.3	Mower projection decal	Decalque projection tondeuse	2	107584
1.4	General message mower decal	Décalque tondeuse message général	2	107585
1.5	Decal fuel recommendations	Décalque recommandations carburant	1	108261
1.6	Decal pinch point	Décalque point de pincement	2	105946
1.7	Decal No Step	Decalque Ne pas marcher	1	108301
2	Blades assembly	Lame assemblées	1	501015
3	Bender assembly	Tendeur assemblé	1	501399
4	Guard assembly	Garde assemblé	1	501019
5	Engine base	Base du moteur	1	108263
6	Grommet	Oeillet	1	107365
7	2.5 Gallon EPA gasoline tank	Réservoir à essence 2.5 gallon EPA	1	107264
8	V pulley	Poulie en V	1	104774
9	Hub assembly	Moyeu assemblé	1	107590
10	Flap fixture	Fixation de rabat	1	107343
11	Clutch spacer	Espaceur d'embrayage	1	106616
12	Special flat washer	Rondelle plate spéciale	1	106338
13	Spacer	Espaceur	1	107032
14	V-Belt B-47	Courroie en V B-47	1	107354
15	Spring	Ressort	1	102304
16	Ball Bearing 1614 2RS	Roulement à billes	2	107054
17	Knob	Bouton	2	103027
18	Eye bolt	Boulon à oeillet	1	102087
19	Washer	Rondelle	2	106982
20	Nylon bushing	Coussinet en nylon	1	104039
21	Electric actuator	Actuateur électrique	1	107156
22	Electric board	Panneau électrique	1	108236
23	Hitch frame	Châssis d'attache	1	108243
24	Rubber guard	Garde en caoutchouc	1	107342
25	Lift lever	Levier de relevage	2	108246

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**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
**Débroussailleuse assemblée #501382**  
**Rough cutter assembly #501382**

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
26	Support plate	Plaque de support	2	108247
27	Fuel tank tie-down	Attache reservoir	2	108248
28	Sleeve	Douille	1	108249
29	Bracket	Fixation	1	108250
30	Slide plate	Plaque de glissement	2	108258
31	Wire clamp	Serre-fils	1	108259
32	Bracket	Fixation	1	108260
33	Pivot sleeve	Douille de pivot	1	108283
34	Low pressure fuel hose EPA 3/16"	Tuyau à essence basse pression EPA 3/16"	1	108284
35	Spring action hose clamp for 7/16" hose	Collier de serrage à ressort pour tuyau 7/16"	2	107310
36	Cable Tie Mount 0.19"	Support d'attache de nylon 0.19"	3	108281
37	Plate	Plaque	1	108315
38	Hex. bolt 1/4" n.c. x 3/4" GR5	Boulon hex. 1/4" n.c. x 3/4" GR5	5	O/L (300NC.5P_1-4x3-4)
39	Hex. bolt 5/16" n.c. x 1" GR5	Boulon hex. 5/16" n.c. x 1" GR5	13	O/L (300NC.5P_5-16x1)
40	Hex. bolt 3/8" n.c. x 1" GR5	Boulon hex. 3/8" n.c. x 1" GR5	10	O/L (300NC.5P_3-8x1)
41	Hex. bolt 3/8" n.c. x 2 1/4" GR5	Boulon hex. 3/8" n.c. x 2 1/4" GR5	2	O/L (300NC.5P_3-8x2-1-4)
42	Hex. bolt 3/8" n.c. x 1 3/4" GR5	Boulon hex. 3/8" n.c. x 1 3/4" GR5	1	O/L (300NC.5P_3-8x1-3-4)
43	Hex. bolt 1/2" n.c. x 2 1/2" GR5	Boulon hex. 1/2" n.c. x 2 1/2" GR5	1	O/L (300NC.5P_1-2x2-1-2)
44	Hex. bolt 5/8" n.c. x 1" GR5	Boulon hex 5/8" n.c. x 1" GR5	2	O/L (300NC.5P_5-8x1)
45	Hex. bolt 1/2" n.f. x 2" GR8	Boulon hex 1/2" n.f. x 2" GR8	4	O/L (300NF.8P_1-2x2)
46	Carriage bolt 3/8" n.c. x 1 " GR5	Boulon à carrosserie 3/8" n.c. x 1 " GR5	2	O/L (320NC.5P_3-8x1)
47	Hex. nut 5/16" n.c. GR5	Écrou hex. 5/16" n.c. GR5	1	O/L (330NC.P_5-16)
48	Nylon Insert lock Nut 1/4" n.c.	Écrou à garniture de nylon 1/4" n.c.	9	O/L (335NC.P_1-4)
49	Nylon Insert lock Nut 5/16" n.c. GR5	Écrou à garniture de nylon 5/16" n.c. GR5	8	O/L (335NC.P_5-16)
50	Nylon Insert Lock Nut 3/8" n.c.	Écrou à garniture de nylon 3/8" n.c.	16	O/L (335NC.P_3-8)
51	Nylon Insert lock Nut 1/2" n.c.	Écrou à garniture de nylon 1/2" n.c.	1	O/L (335NC.P_1-2)
52	Nylon insert lock nut 1/2" n.f. GR8	Écrou à garniture de nylon 1/2" n.f. GR8	4	O/L (335NF.8P_1-2)
53	Nylon insert lock nut 1" n.c	Écrou à garniture de nylon 1" n.c	2	O/L (335NC.P_1)
54	Nylon Insert lock Nut 5/8" n.c.	Écrou à garniture de nylon 5/8" n.c.	2	O/L (335NC.P_5-8)
55	Nylon insert lock nut 3/8" n.c. (thin)	Écrou à garniture de nylon 3/8" n.c. (mince)	1	O/L (336NC.P_3-8)
56	Nylon insert locknut #8 x 32 (thin) GR2	Écrou à garni. de nylon #8 x 32 (mince) GR2	2	O/L (336NC.P_#8x32)
57	Flat washer #10 hole	Rondelle plate #10 trou	2	O/L (360.P_#10T)

O/L = Obtain Locally / Obtenir localement

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**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
**Débrousailleuse assemblée #501382**  
**Rough cutter assembly #501382**

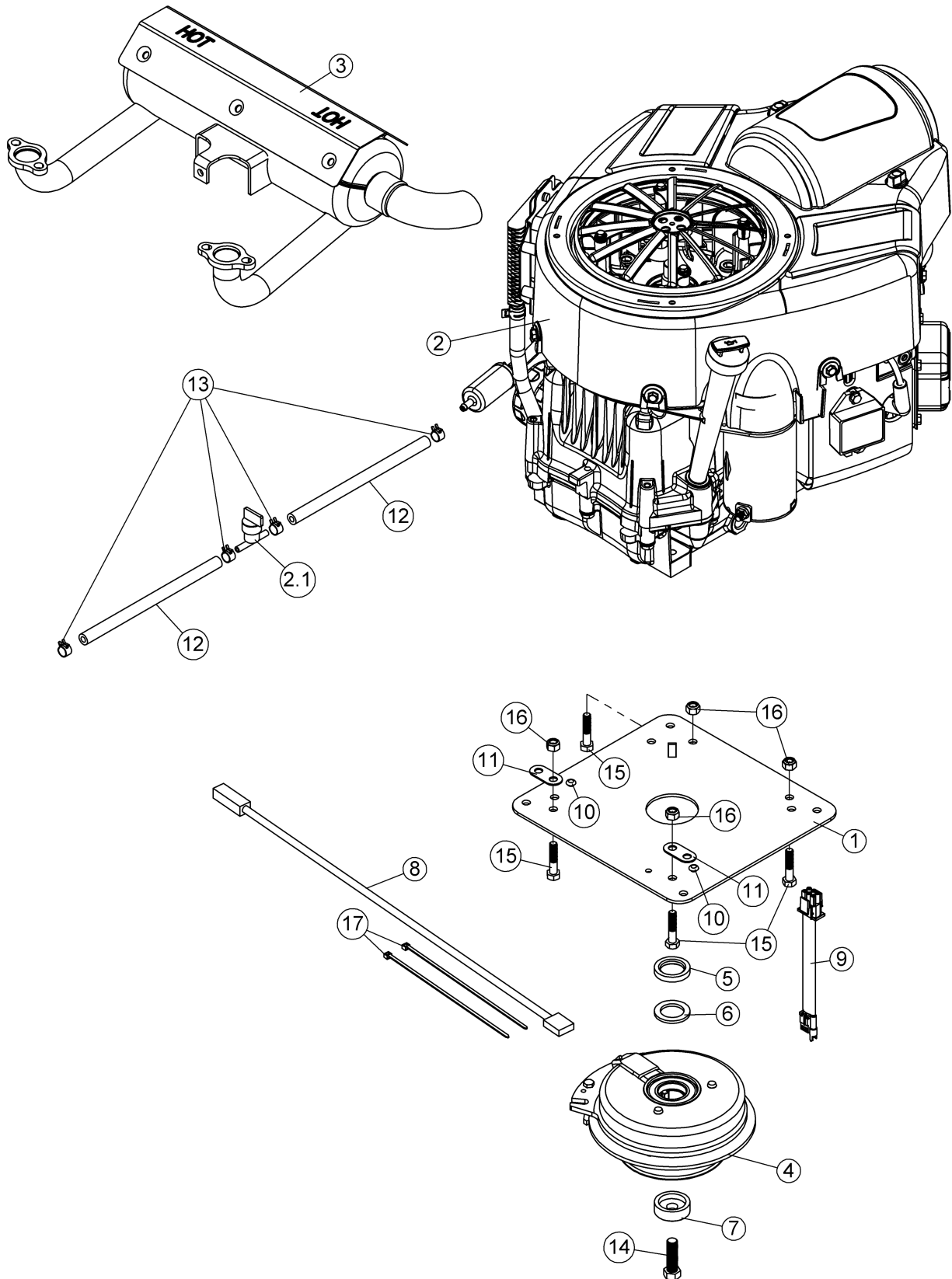
REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
58	Flat washer 1/4" hole	Rondelle plate 1/4" trou	4	O/L (360.P_1-4T)
59	Flat washer 5/16" hole	Rondelle plate 5/16" trou	1	O/L (360.P_5-16T)
60	Flat washer 3/8" hole	Rondelle plate 3/8" trou	1	O/L (360.P_3-8T)
61	Flat washer 7/16" hole	Rondelle plate 7/16" trou	1	O/L (360.P_7-16T)
62	Lock washer 1/4"	Rondelle de blocage 1/4"	4	O/L (362.P_1-4)
63	Lock washer 3/8"	Rondelle de blocage 3/8"	8	O/L (362.P_3-8)
64	Lock washer 5/16"	Rondelle de blocage 5/16"	6	O/L (362.P_5-16)
65	Hex socket f.h. cap screw 1/4" n.c. x 3/4"	Vis à tête fraisée à 6PC 1/4" n.c. x 3/4"	4	O/L (386NC.P_1-4x3-4)
66	Machine screw Pan head no.8 x 32 x 5/8"	Vis mécanique à tête Pan no.8 x 32 x 5/8"	2	O/L (395NC.P_#8x32x5-8)
67	Tie wrap 8"	Attache de nylon 8"	2	O/L (426-8)

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**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
**Moteur Briggs M40 20 CV avec embrayage #501326**  
**Briggs M40 20 HP engine with clutch #501326**



## NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST

Moteur Briggs M40 20 CV avec embrayage #501326

Briggs M40 20 HP engine with clutch #501326

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Engine support	Support de moteur	1	108262
2	Briggs M40 vertical engine 20 HP	Moteur vertical Briggs M40 20 CV	1	108221
2.1	Fuel valve from engine	Valve d'essence du moteur	1	-
3	Muffler assembly	Silencieux assemblé	1	108264
4	Electric Clutch	Embrayage Électrique	1	107459
5	Clutch spacer	Espaceur d'embrayage	1	106616
6	Special flat washer	Rondelle plate spéciale	1	106338
7	Flange washer	Rondelle à bride	1	103976
8	Wire Assembly	Fil Assemblé	1	106548
9	Wire assembly	Fil assemblé	1	108291
10	Cable Tie Mount 0.19"	Support d'attache de nylon 0.19"	2	108281
11	Ground plate	Plaque de mise à terre	2	108289
12	Fuel hose EPA 1/4"	Tuyau à essence EPA 1/4"	2	107572
13	Spring action hose clamp for 1/2" hose	Collier de serrage à ressort pour tuyau 1/2"	4	107269
14	Hex. bolt 7/16" n.f. x 1 1/2" GR5	Boulon hex. 7/16" n.f. x 1 1/2" GR5	1	O/L (300NF.5P_7-16x11-2)
15	Hex. bolt 5/16" n.c. x 1 1/2"	Boulon hex. 5/16" n.c. x 1 1/2"	4	O/L (300NC.5P_5-16x1-1-2)
16	Nylon Insert lock Nut 5/16" n.c. GR5	Écrou à garniture de nylon 5/16" n.c. GR5	4	O/L (335NC.P_5-16)
17	Tie wrap 8"	Attache de nylon 8"	2	O/L (426-8)

O/L = Obtain Locally / Obtenir localement

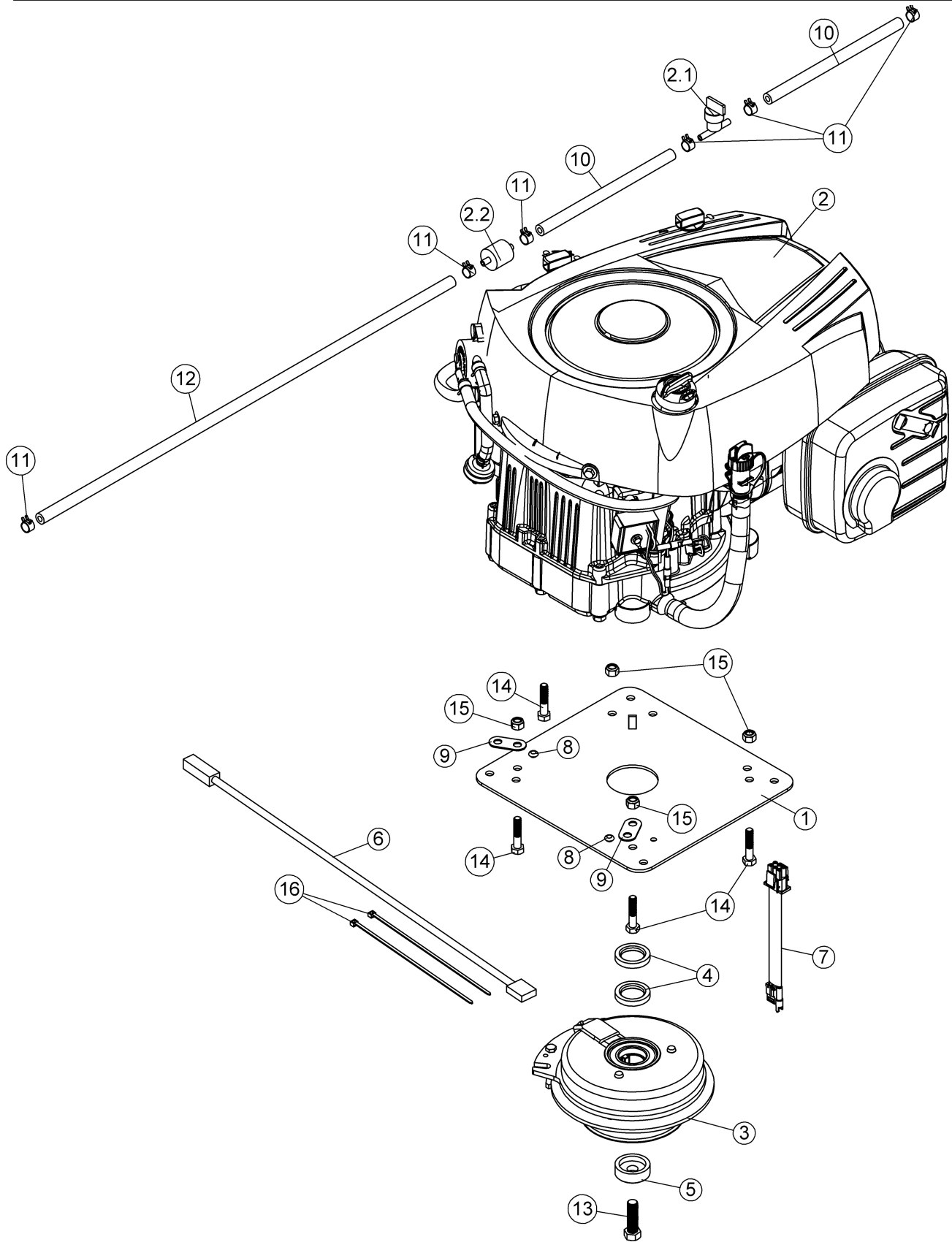
Part numbers starting with 500XXX are not available for sale, however, separate parts are available for sale individually.

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**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**

Moteur Briggs Pro 17.5 CV avec embrayage #501328

Briggs Pro engine 17.5 HP with clutch #501328





**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
**Moteur Briggs Pro 17.5 CV avec embrayage #501328**  
**Briggs Pro engine 17.5 HP with clutch #501328**

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Engine support	Support de moteur	1	108262
2	Briggs Pro vertical engine 17.5 HP	Moteur vertical Briggs Pro 17.5 CV	1	108220
2.1	Fuel valve from engine	Valve d'essence du moteur	1	-
2.2	Fuel filter from engine	Filtre à essence du moteur	1	-
3	Electric Clutch	Embrayage Électrique	1	107459
4	Clutch spacer	Espaceur d'embrayage	2	106616
5	Flange washer	Rondelle à bride	1	103976
6	Wire Assembly	Fil Assemblé	1	106548
7	Wire assembly	Fil assemblé	1	108291
8	Cable Tie Mount 0.19"	Support d'attache de nylon 0.19"	2	108281
9	Ground plate	Plaque de mise à terre	2	108289
10	Fuel hose EPA 1/4"	Tuyau à essence EPA 1/4"	2	107572
11	Spring action hose clamp for 1/2" hose	Collier de serrage à ressort pour tuyau 1/2"	6	107269
12	Fuel hose EPA 1/4"	Tuyau à essence EPA 1/4"	1	108392
13	Hex. bolt 7/16" n.f. x 1 1/2" GR5	Boulon hex. 7/16" n.f. x 1 1/2" GR5	1	O/L (300NF.5P_7-16x11-2)
14	Hex. bolt 5/16" n.c. x 1 1/2"	Boulon hex. 5/16" n.c. x 1 1/2"	4	O/L (300NC.5P_5-16x1-1-2)
15	Nylon Insert lock Nut 5/16" n.c. GR5	Écrou à garniture de nylon 5/16" n.c. GR5	4	O/L (335NC.P_5-16)
16	Tie wrap 8"	Attache de nylon 8"	2	O/L (426-8)

O/L = Obtain Locally / Obtenir localement

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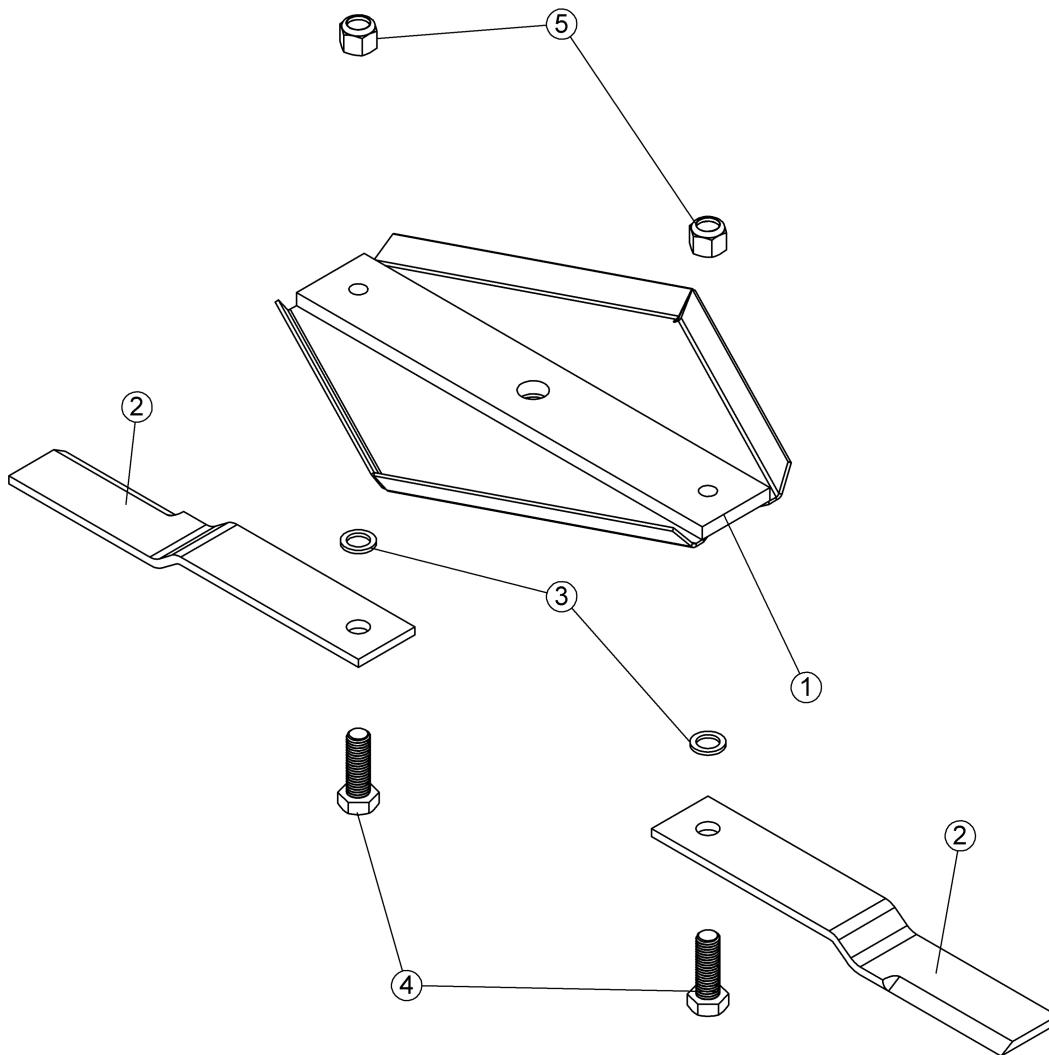
Les numéros 500xxx ne sont pas disponibles pour la vente. Au besoin, veuillez commander les numéros de pièces séparément.

## NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST

Lame assemblées #501015

Blades assembly #501015

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Stump jumper	Saute obstacle	1	107341
2	Mower blade 15,5" one hole	Lame de tondeuse 15" un trou	2	107265
3	Shim	Cale	2	107366
4	Hex. bolt 3/4" n.c. x 2 1/4" GR8	Boulon hex. 3/4" n.c. x 2 1/4" GR8	2	O/L (300NC.8P_3-4x2-1-4)
5	Nylon Insert lock Nut 3/4" n.c.	Écrou à garniture de nylon 3/4" n.c.	2	O/L (335NC.P_3-4)



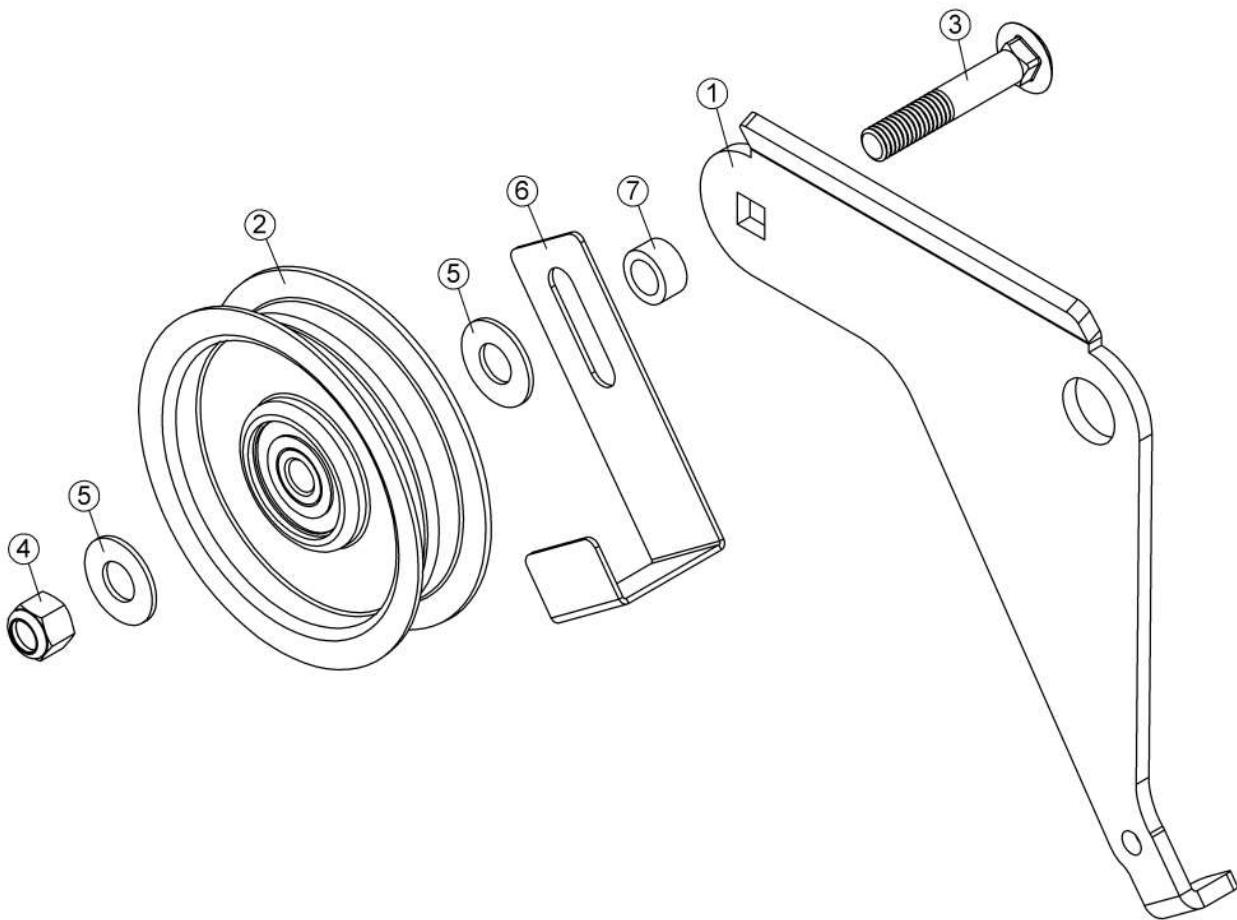
O/L = Obtain Locally / Obtenir localement

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**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
**Tendeur assemblé #501399**  
**Bender assembly #501399**

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#					
1	Bender	Tendeur	1	108640					
2	Flat pulley	Poulie plate	1	102765					
3	Carriage bolt 3/8" n.c. x 2 1/4" GR5	Boulon à carrosserie 3/8" n.c. x 2 1/4" GR5	1	O/L (320NC.5P_3-8x2-1-4)					
4	Nylon Insert Lock Nut 3/8" n.c.	Écrou à garniture de nylon 3/8" n.c.	1	O/L (335NC.P_3-8)					
5	Flat washer 7/16" hole	Rondelle plate 7/16" trou	2	O/L (360.P_7-16T)					
6	Belt guide	Guide-courroie	1	106878	7	Sleeve	Douille	1	108643
7	Sleeve	Douille	1	108643					



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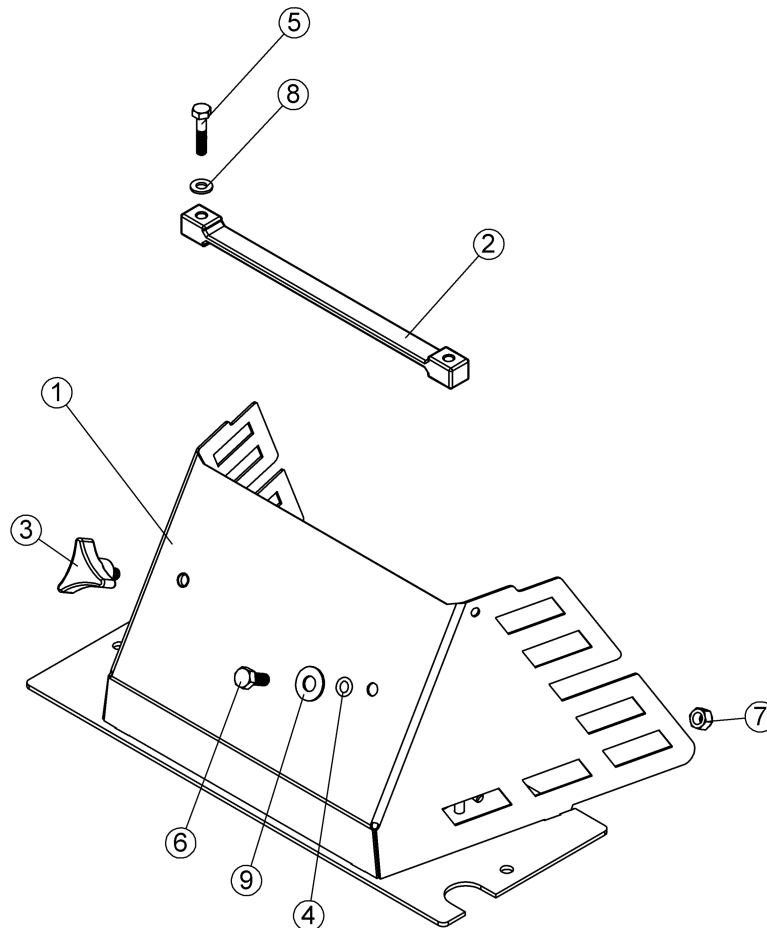
Les numéros 500xxx ne sont pas disponibles pour la vente. Au besoin, veuillez commander les numéros de pièces séparément.

## NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST

Garde assemblé #501019

Guard assembly #501019

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Guard	Garde	1	107337
2	Rubber strap	Sangle en caoutchouc	1	107363
3	Knob	Bouton	1	106861
4	O-Ring	Anneau d'étanchéité	1	108313
5	Hex. bolt 1/4" n.c. x 1 1/4" GR5	Boulon hex. 1/4" n.c. x 1 1/4" GR5	1	O/L (300NC.5P_1-4x1-1-4)
6	Hex. bolt 5/16" n.c. x 3/4" GR5	Boulon hex. 5/16" n.c. x 3/4" GR5	1	O/L (300NC.5P_5-16x3-4)
7	Nylon Insert lock Nut 5/16" n.c. GR5	Écrou à garniture de nylon 5/16" n.c. GR5	1	O/L (335NC.P_5-16)
8	Flat washer 1/4" hole	Rondelle plate 1/4" trou	1	O/L (360.P_1-4T)
9	Flat washer 3/8" hole	Rondelle plate 3/8" trou	1	O/L (360.P_3-8T)

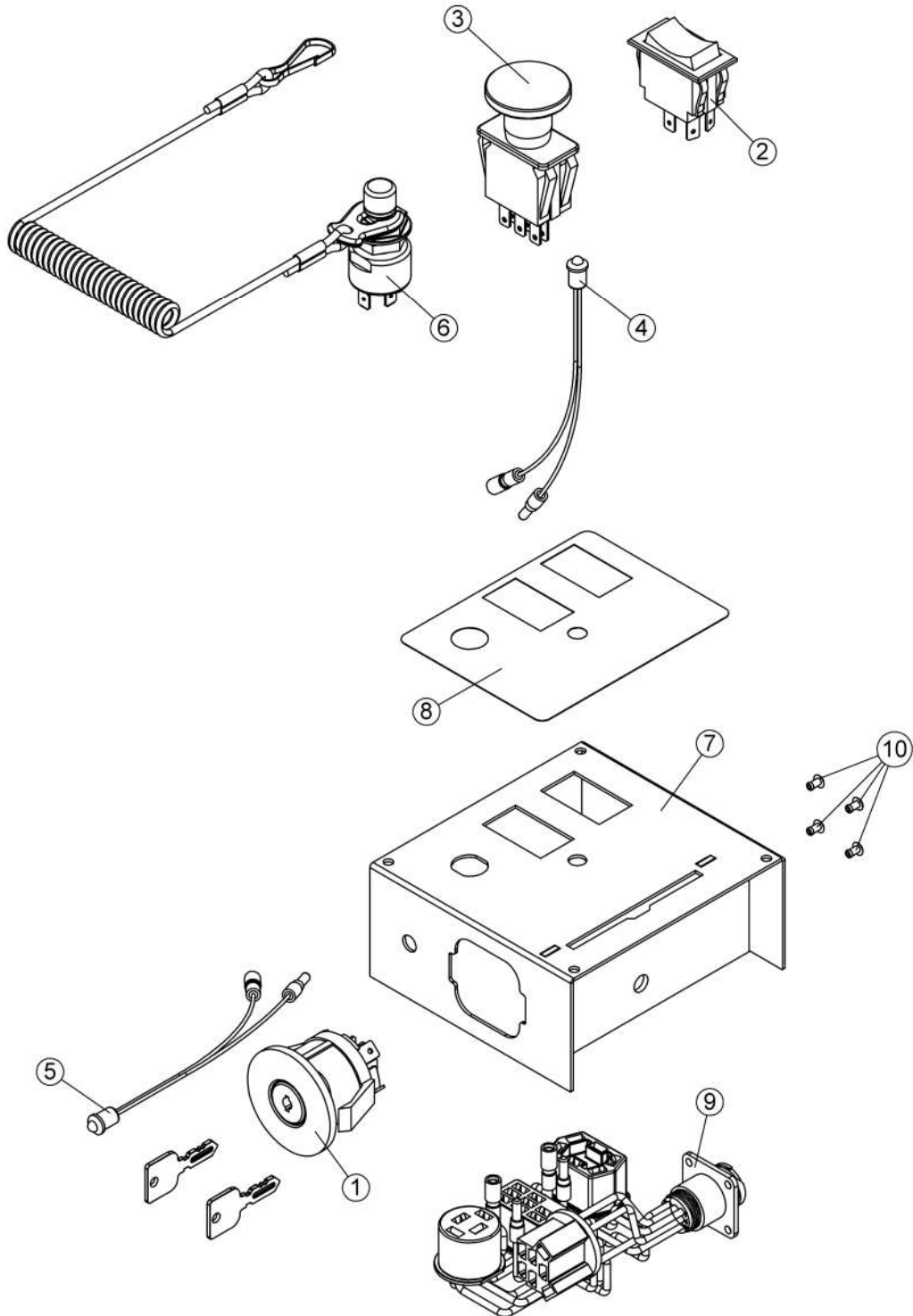


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**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
Boîte de contrôle assemblée #501325  
Control box assembly #501325



**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
**Boîte de contrôle assemblée #501325**  
**Control box assembly #501325**

<b>REF.</b>	<b>ENGLISH DESCRIPTION</b>	<b>DESCRIPTION FRANÇAISE</b>	<b>QTY.</b>	<b>PART#</b>
1	Ignition switch	Commutateur d'ignition	1	104015
2	Switch	Commutateur	1	107446
3	Emergency switch	Interrupteur d'urgence	1	107447
4	Warning light	Avertisseur lumineux	1	107456
5	Warning light	Avertisseur lumineux	1	107457
6	Emergency switch with lanyard	Interrupteur d'urgence avec cordon	1	107472
7	Box cover	Couvercle de la boîte	1	107579
8	Control box decal	Décalque de la boîte de contrôle	1	107628
9	Control box wire assembly	Fil assemblé de la boîte de contrôle	1	108660
10	Pop-rivet 1/8" x 3/16" no.AD-43BS	Rivet pop 1/8" x 3/16" no.AD-43BS	4	O/L (415_1-8x3-16)

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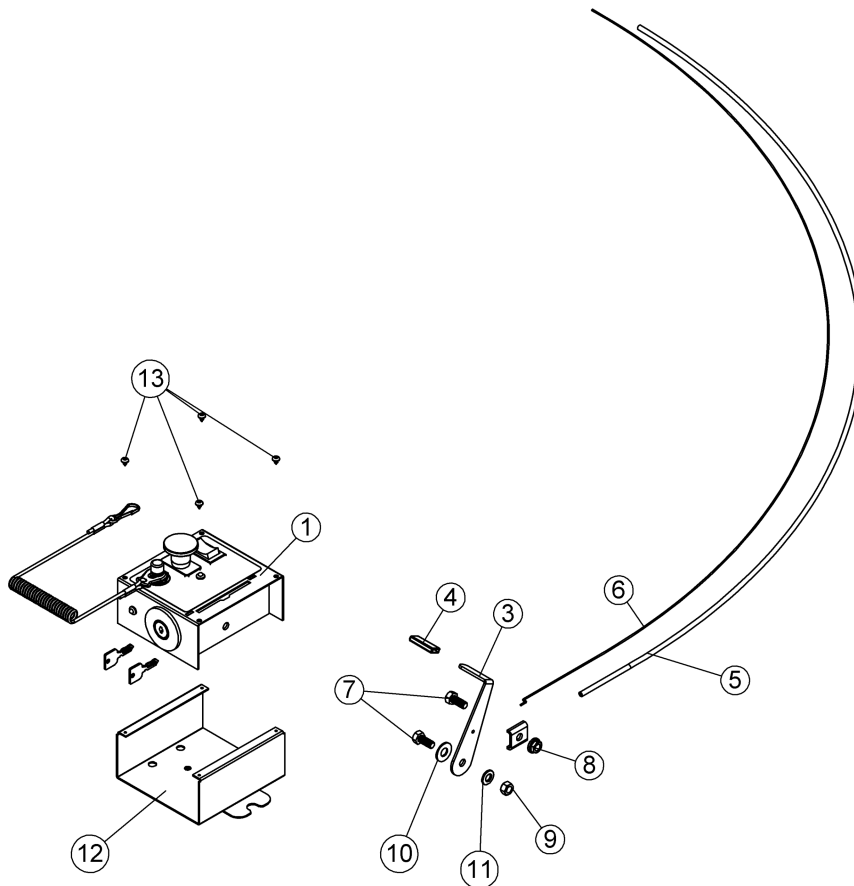


## NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST

Boîte de contrôle assemblée avec câble #501336

Control box assembly with cable #501336

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Control box assembly	Boîte de contrôle assemblée	1	501325
2	Spring bracket	Fixation du ressort	1	102210
3	Throttle arm	Bras d'accélérateur	1	102541
4	Handle grip	Poignée de plastique	1	102546
5	Cable shield	Gaine de câble	1	107582
6	Inner wire	Broche intérieure	1	107583
7	Hex. bolt 5/16" n.c. x 3/4" GR5	Boulon hex. 5/16" n.c. x 3/4" GR5	2	O/L (300NC.5P_5-16x3-4)
8	Flange nut 5/16" n.c.	Écrou à bride 5/16" n.c.	1	O/L (334NC.P_5-16)
9	Stover lock nut 5/16" n.c.	Écrou de blocage 5/16" n.c.	1	O/L (338NC.P_5-16)
10	Flat washer 3/8" hole	Rondelle plate 3/8" trou	1	O/L (360.P_3-8T)
11	Belleville washer 3/8"	Rondelle Belleville 3/8"	1	102144
12	Box	Boîte	1	108255
13	Metal screw P.H. #8 x 1/4"	Vis à métal P.H. #8 x 1/4"	4	O/L (400.P_8x1-4)



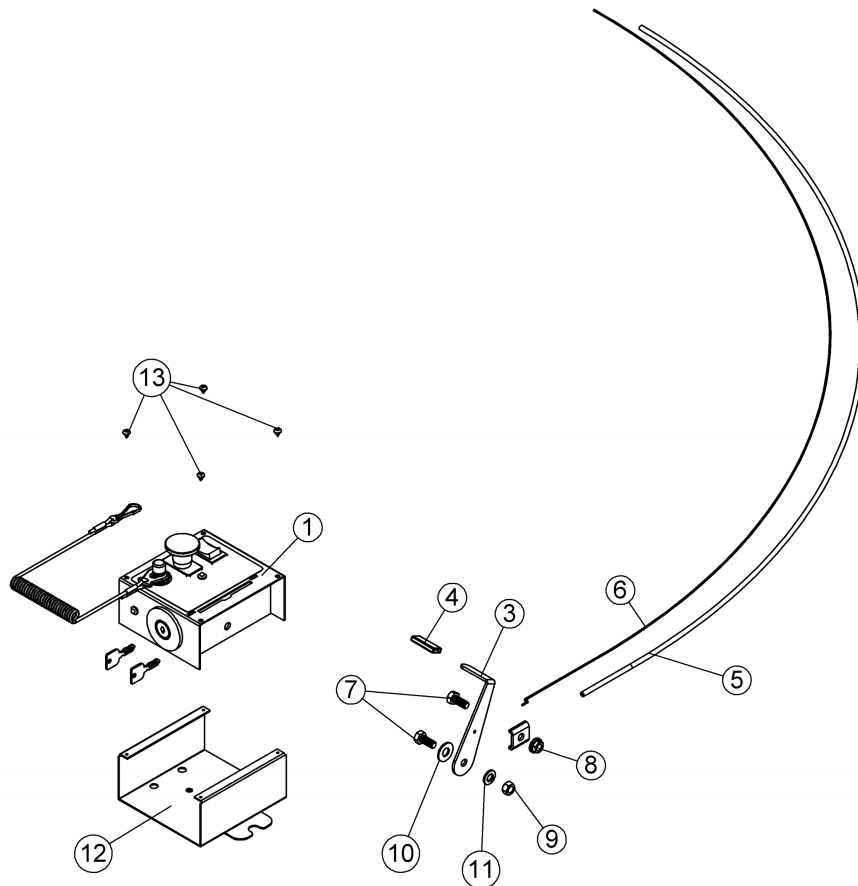
O/L = Obtain Locally / Obtenir localement

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**NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST**  
**Boîte de contrôle assemblée avec câble #501337**  
**Control box assembly with cable #501337**

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Control box assembly	Boîte de contrôle assemblée	1	501325
2	Spring bracket	Fixation du ressort	1	102210
3	Throttle arm	Bras d'accélérateur	1	102541
4	Handle grip	Poignée de plastique	1	102546
5	Cable shield	Gaine de câble	1	108294
6	Inner wire	Broche intérieure	1	108295
7	Hex. bolt 5/16" n.c. x 3/4" GR5	Boulon hex. 5/16" n.c. x 3/4" GR5	2	O/L (300NC.5P_5-16x3-4)
8	Flange nut 5/16" n.c.	Écrou à bride 5/16" n.c.	1	O/L (334NC.P_5-16)
9	Stover lock nut 5/16" n.c.	Écrou de blocage 5/16" n.c.	1	O/L (338NC.P_5-16)
10	Flat washer 3/8" hole	Rondelle plate 3/8" trou	1	O/L (360.P_3-8T)
11	Belleville washer 3/8"	Rondelle Belleville 3/8"	1	102144
12	Box	Boîte	1	108255
13	Metal screw P.H. #8 x 1/4"	Vis à métal P.H. #8 x 1/4"	4	O/L (400.P_8x1-4)



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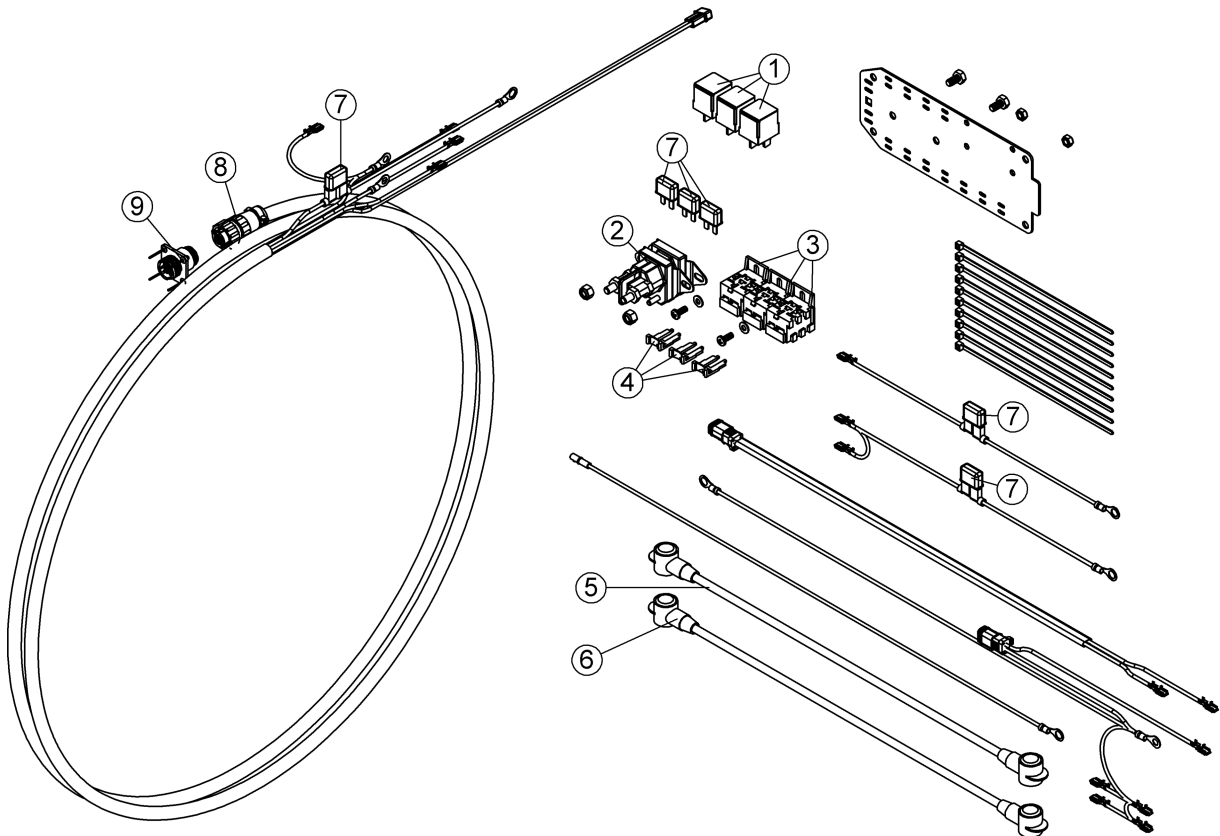
Les numéros 500xxx ne sont pas disponibles pour la vente. Au besoin, veuillez commander les numéros de pièces séparément.

**NOMENCLATURE ET PIÈCES DE SERVICE**  
**PARTS BREAKDOWN & SERVICE PARTS**  
 Panneau électrique #108236  
 Electric board #108236

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Relay	Relais	3	104405
2	Relay	Relais	1	107274
3	Relay connector	Connecteur de relais	3	107501
4	Relay connector key	Clef du connecteur de relais	3	107502
5	Wire assembly (Red Rubber)	Fil assemblé (Caoutchouc rouge)	1	108308
6	Wire assembly (Orange Rubber)	Fil assemblé (Caoutchouc orange)	1	108581
7	Breaker	Disjoncteur	6	107600
8	Connector kit	Ensemble de connecteur	1	108564
9	Connector kit	Ensemble de connecteur	1	108565

**Note :**

L'item #9 n'est pas inclus avec 108236.  
 The item #9 is not included with 108236.





**NOTES**

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# TORQUE SPECIFICATION TABLE

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

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

\* Thick nuts must be used with grade 8 bolts

SEE Grade No.		2				5				8 *			
BOLT HEAD IDENTIFICATION MARKS AS PER GRADE NOTE MANUFACTURING MARKS WILL VARY		TORQUE				TORQUE				TORQUE			
BOLT SIZE		FOOT POUNDS		NEW TON-METERS		FOOT POUNDS		NEW TON-METERS		FOOT POUNDS		NEW TON-METERS	
Inches	Millimetre	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1/4"	6.35	5	6	6.8	8.13	9	11	12.2	14.9	12	15	16.3	30.3
5/16"	7.94	10	12	13.6	16.3	17	20.5	23.1	27.8	24	29	32.5	39.3
3/8"	9.53	20	23	27.1	31.2	35	42	47.5	57	45	54	61	73.2
7/16"	11.11	30	35	40.7	47.4	54	64	73.2	86.8	70	84	94.9	113.9
1/2"	12.7	45	52	61	70.5	80	96	108.5	130.2	110	132	149.2	179
9/16"	14.29	65	75	88.1	101.6	110	132	149.2	179	160	192	217	260.4
5/8"	15.88	95	105	128.7	142.3	150	180	203.4	244.1	220	264	298.3	358
3/4"	19.05	150	185	203.3	250.7	270	324	366.1	439.3	380	456	515.3	618.3
7/8"	22.23	160	200	216.8	271	400	480	542.4	650.9	600	720	813.6	976.3
1"	25.4	250	300	338.8	406.5	580	696	786.5	943.8	900	1080	1220.4	1464.5

METRIC BOLT TORQUE SPECIFICATIONS							
		COARSE THREAD			FINE THREAD		
Size Screw	Grade No.	Pitch (mm)	Foot Pounds	Newton-Meters	Pitch (mm)	Foot Pounds	Newton-Meters
M6	4T	1.00	3.6 - 5.8	4.9 - 7.9	-	-	-
	7T		5.8 - 9.4	7.9 - 12.7		-	-
	8T		7.2 - 10	9.8 - 13.6		-	-
M8	4T	1.25	7.2 - 14	9.8 - 19	1.00	12 - 17	16.3 - 23
	7T		17 - 22	23 - 29.8		19 - 27	25.7 - 36.6
	8T		20 - 26	27.1 - 35.2		22 - 31	29.8 - 42
M10	4T	1.50	20 - 25	27.1 - 33.9	1.25	20 - 29	27.1 - 39.3
	7T		34 - 40	46.1 - 54.2		35 - 47	47.4 - 63.7
	8T		38 - 46	51.5 - 62.3		40 - 52	54.2 - 70.5
M12	4T	1.75	28 - 34	37.9 - 46.1	1.25	31 - 41	42 - 55.6
	7T		51 - 59	69.1 - 79.9		56 - 68	75.9 - 92.1
	8T		57 - 66	77.2 - 89.4		62 - 75	84 - 101.6
M14	4T	2.00	49 - 56	66.4 - 75.9	1.50	52 - 64	70.5 - 86.7
	7T		81 - 93	109.8 - 126		90 - 106	122 - 143.6
	8T		96 - 109	130.1 - 147.7		107 - 124	145 - 168
M16	4T	2.00	67 - 77	90.8 - 104.3	1.50	69 - 83	93.5 - 112.5
	7T		116 - 130	157.2 - 176.2		120 - 138	162.6 - 187
	8T		129 - 145	174.8 - 196.5		140 - 158	189.7 - 214.1
M18	4T	2.00	88 - 100	119.2 - 136	1.50	100 - 117	136 - 158.5
	7T		150 - 168	203.3 - 227.6		177 - 199	239.8 - 269.6
	8T		175 - 194	237.1 - 262.9		202 - 231	273.7 - 313
M20	4T	2.50	108 - 130	146.3 - 176.2	1.50	132 - 150	178.9 - 203.3
	7T		186 - 205	252 - 277.8		206 - 242	279.1 - 327.9
	8T		213 - 249	288.6 - 337.4		246 - 289	333.3 - 391.6



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