

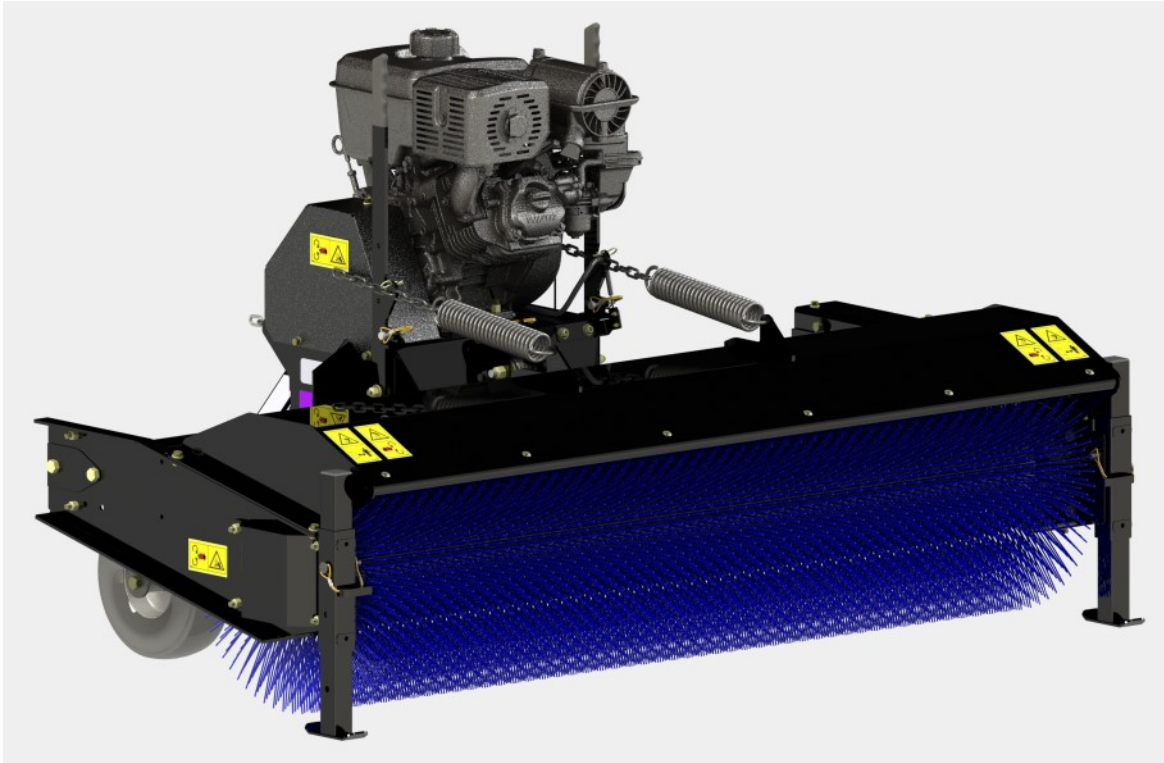


OWNER'S MANUAL

Translated Version

Model Number

700853-1 & 700854-1



BERCO **60" & 66" Rotary broom**

- * ASSEMBLY
- * OPERATION

- * REPAIR PARTS
- * MAINTENANCE

CAUTION:

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



LIMITED WARRANTY FOR 60" ROTARY BROOM #700853

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 use: 1 year
- Semi-commercial, professional or rental use: 90 days

Exceptions Noted Below; the following items are guaranteed by the original manufacturer and have their own warranty, conditions and limited time:

- Tire Chains: 90 days
- Engines: Will vary as per the manufacturer
Please refer to the engine manufacturer's warranty statement included with the unit. BERCOMAC is not authorized to handle warranty adjustments on engines.

Items and Conditions NOT Covered:

This warranty does not cover the following:

- Pick-up or delivery charges or in-home services fees.
- Any damage or deterioration of the unit, parts and or finish of these due to normal use, wear and tear, or exposure.
- Cost of regular use or maintenance service or parts, such as gas, oil, lubricants, tune-up parts, and adjustments.
- Any part or accessory which has been altered, modified, misused, neglected, accidentally damaged or not properly installed, maintained, stored or repaired not in accordance with the instructions in the owner's manual.
- Repair due to normal wear and or any wear items such as shear pins, bolts, belts, etc.
- Expedited freight fee services for replacement parts.
- Shear bolts and shear pins are to be considered as a preventive measure not as an assured protection, any damages resulting from the lack of shear bolts breakage are not covered.
- Damages due to product being installed on a vehicle other than stipulated in 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. Requests for warranty claims must be carried out through the same distribution network used to purchase the product.. Don't forget to bring your proof of purchase (sales receipt) to the BERCOMAC dealer.

Owner's Responsibilities:

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

General Conditions:

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

LIMITED WARRANTY FOR 66" ROTARY BROOM #700854

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. 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.

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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 or maintaining 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.

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 or maintain 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 or maintain 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 such as traffic, fences, trees, buildings, wires, etc.
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 (in a clean dry area), disengage drives, lower implement, set parking brake, stop the engine, remove ignition key, and wait that all moving parts have stopped and cooled. For gasoline engine, disconnect wire from the spark plug(s) and keep wire away to prevent accidental starting.
2. Use jack and support blocks to support equipment when required. Carefully release pressure from equipment with stored energy.
3. Check all the bolts and components at frequent intervals to make sure that they are properly tightened and in safe working condition.
4. 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.
5. Always refer to the owner's manual when you store the accessory and vehicle for a prolonged or an unspecified length of time.
6. Maintain or replace safety and instruction labels, as necessary.
7. 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.
8. 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.
9. When inflating tires, stand on one side NOT in front or over the tire assembly. Use a safety cage if available.
10. Remove buildup of grease, oil, or debris. Remove all tools and unused parts from equipment before operation.

TRANSPORT

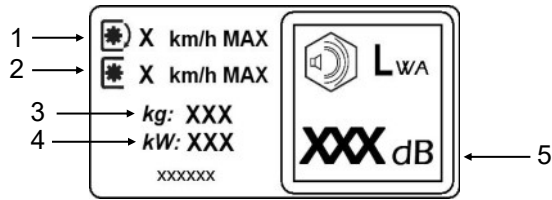
1. Review Transport Safety instructions in vehicle manual before moving or hauling.
2. Check with local authorities regarding transport on public roads and off road. Obey all applicable laws and regulations.
3. Make sure all lights and reflectors that are required by the local highway and transport authorities (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 DECALS

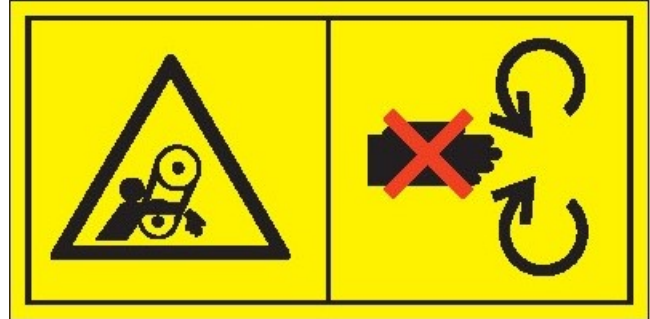


REPLACE IF DECALS ARE DAMAGED
SEE PARTS BREAKDOWN FOR DECAL LOCATION



- 1-Maximum speed when the accessory is in operation.
- 2-Maximum speed when the accessory is not in operation.
- 3-The weight of the accessory.
- 4-The engine wattage (if applicable).
- 5-The sound pressure level (measured in dBA) from the driver's position and with the accessory on the ground at full engine speed.

DECAL #108552



To avoid serious injuries:

Keep hands, feet and clothing away.
Do not attempt to install or remove the belt without reading the owner's manual

DECAL #108557



To avoid serious injuries or death by thrown objects:

Keep people away from the working zone during operation and keep others away.

DECAL#108553



To avoid serious injuries:

Keep hands, feet and clothing away.
Do not attempt to install or remove the belt without reading the owner's manual.

DECAL#108750



Risk of getting pinched:

To avoid serious injuries, keep away from moving parts. Securely and safely immobilize moving parts before doing any maintenance on them.



SAFETY DECALS



REPLACE IF DECALS ARE DAMAGED
SEE PARTS BREAKDOWN FOR DECAL LOCATION

DECAL #108749



DECAL #108748



DECAL #108747



Refer to owner's manual about wearing safety glasses, safety ear muffs and a mask.

DECAL #108556



DECAL #108551



Before doing any maintenance
Remove the key, locate, read and make sure to
understand all of the owner's manual.

Before installing and using:
Locate, read and make sure to understand all of the
owner's manual

ASSEMBLY

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

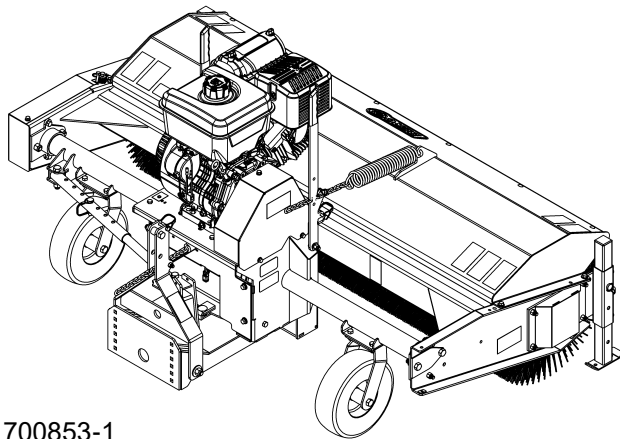
NOTE: In this manual:

- The right and left side is determined by sitting in the driver's seat facing forward.
- Illustrations may vary from one model to the other.

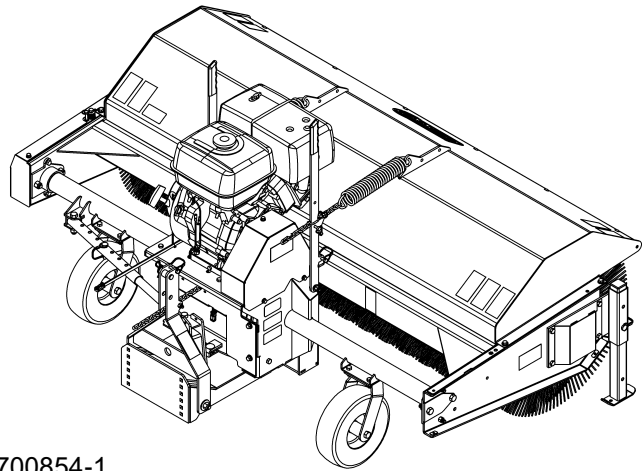
CONVERSION TABLE	
1" (po, in)	25.4 mm
1' (pi, ft)	0.3 m
1 psi (lb/in ²)	6.89 kPa
1 lb	0.45 kg
1 lbf	4.4 N
1 m/h (mi/h)	1.61 km/h
1 hp (cv)	0.75 kW

⚠
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.



700853-1



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Remove from the shipping crate.

TOOLS REQUIRED

- Ratchet
- Sockets 1/2", 9/16", 7/16"
- Wrench 1/2", 9/16", 7/16" (for the nuts on the vehicle's battery posts)
- Test light
- Square screwdriver #2

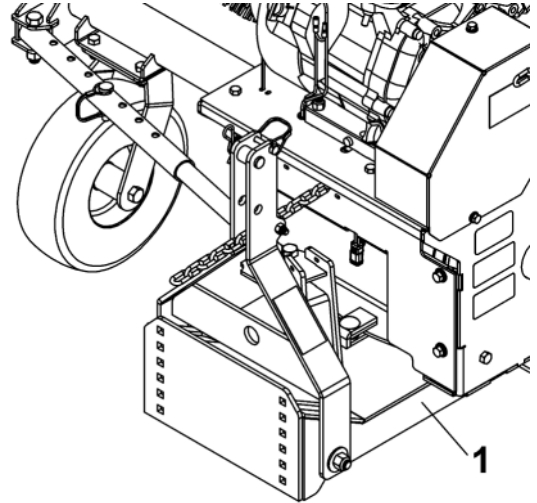


Always make sure to wear the appropriate safety equipment required (glasses, muffs, mask...).

ASSEMBLY

STEP 1: **INSTALL SUBFRAME ON THE BROOM**

Install the subframe or the adaptor to the broom (item 1) by following the instructions supplied with the subframe or the adaptor for rotary broom.



STEP 2: **INSTALL THE EQUIPMENT ON THE VEHICLE**

Install the equipment on the vehicle by following the instructions supplied with the subframe or the adaptor for rotary broom

STEP 3: **CONTROL BOX INSTALLATION.**

1. Choose between the two different ways of securing the control box support (item 1).

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) in order to secure the control box support to the support brackets. (item 5).

NOTE: Choose the right combination of holes on the control box support so that the front of the control box is facing the front of the vehicle.

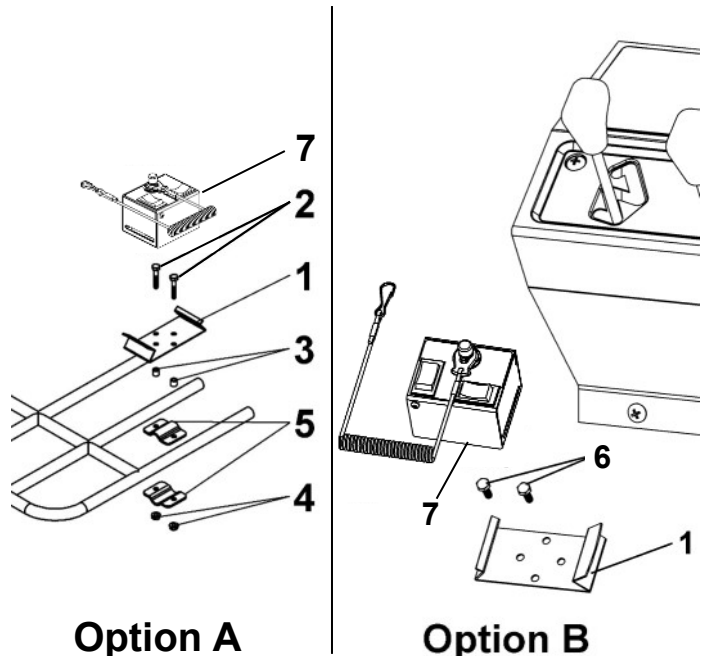
Option B

Use the support as a template and drill two holes in an appropriate place on the vehicle. Secure the control box support with two bolts 1/4" x 1/2" (item 6) and two flange nuts 1/4".

2. Insert the control box (item 7) in the control box support.

NOTE: In order to avoid damages due to water accumulation, make sure the control box is installed horizontally.

IMPORTANT: Make sure the engine electric kill switch is not installed out of reach while the operator is riding the ATV. Install the control box at a secure location easy to reach for the operator making sure the KILL switch button will can be easily activated to stop the engine fast enough in case of an emergency.



Option A

Option B

Install the control box.

ASSEMBLY

STEP 4: **CONNECTING THE WIRES**

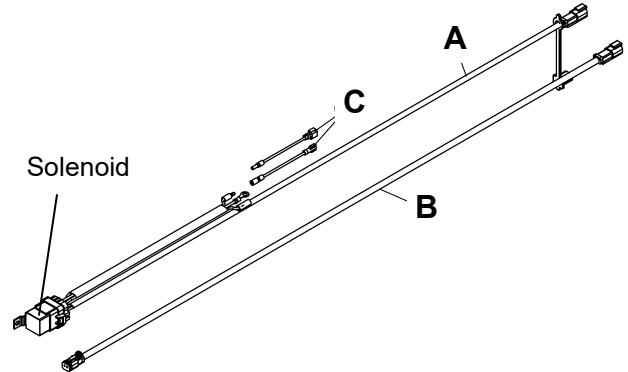
Limit switch

Connect only if the broom is raised using a winch:

See the instructions included with the subframe in order to do the connections.

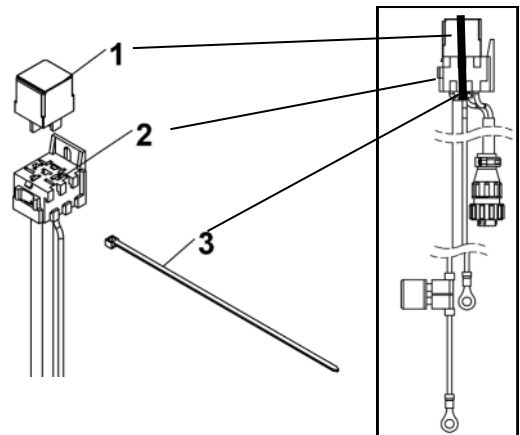
Do not connect if the broom is not raised using a winch:

In this case, the limit switch and the wires used to connect it to the vehicle (items A, B, C) are not required.



Install the relay for control box

Assemble the relay:
Tightly snap the relay (item 1) into the it's plug (item 2). Secure the relay into place with a nylon tie wrap (item 3).



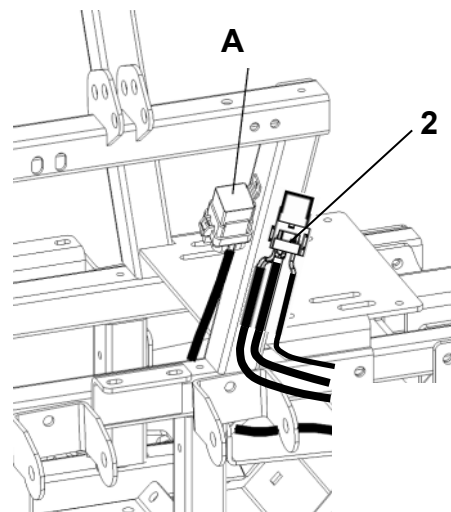
Place and secure the solenoid :

As shown, place and secure the assembled relay (item 2) on the vehicle's frame with some nylon tie wraps.

NOTE: This position may vary according to the vehicle, the position of the control box and the length of the wires.

TIP: Attach two nylon tie wraps together to make it easier to go around the frame's tubing. Make sure it is well tied down.

NOTE: The solenoid (item A) is required only if the broom is raised using the vehicle's winch.



ASSEMBLY

Identify the electrical wire "Accessory":

Put the High/Low voltage tester's clamp on the negative post(-) on the battery or on a metallic surface without any paint.

Turn the key to the "Accessory" or running position (picture or position may differ depending of the vehicle).

Insert the tip of the tester in the hole at the back of the switch to touch the metal wire. Usually it is the red wire but can vary from one tractor to another.

If the light on the tester lights up, turn the ignition key to the **OFF** position. If the light turns off, the wire for **Accessory** has been identified.

If the light stays **ON**, repeat the operation on another wire.

Required conditions to identify the appropriate wire:

- Accessory wire in running position: Tester is lighted up
- Off position: Tester light is turned off

Connect the control wire:

Join the accessory wire from vehicle (item 1) to the red wire (item 2) using the instant connector (item 3).

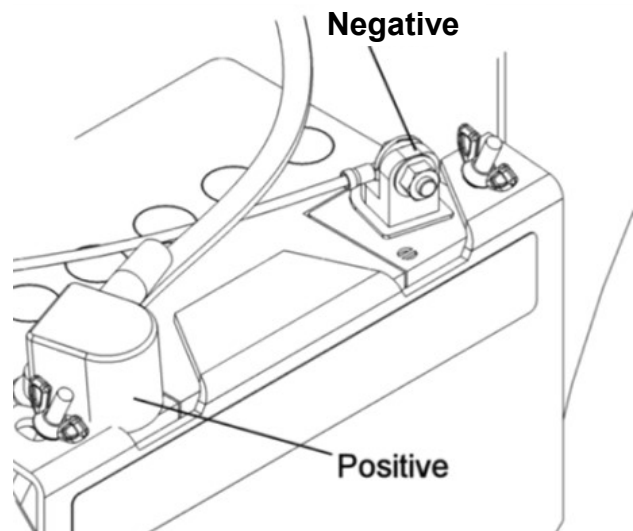
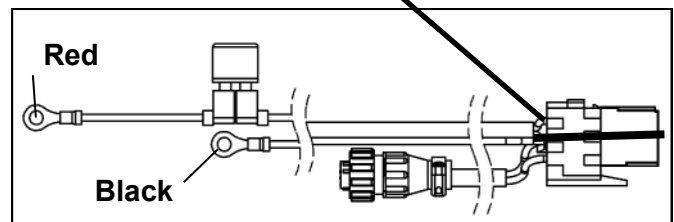
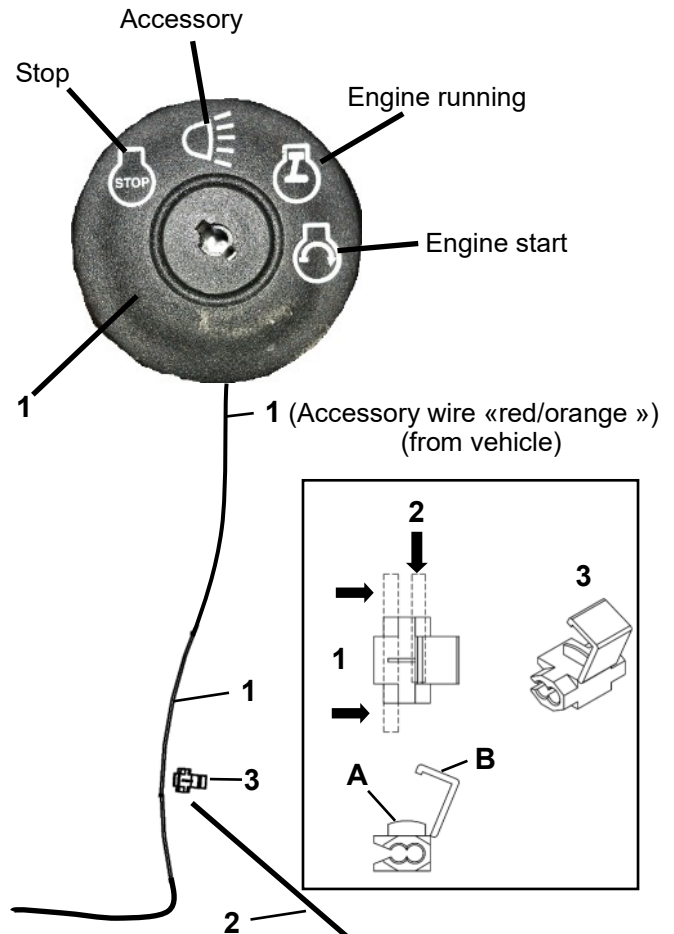
IMPORTANT: To prevent damaging the wires and getting a bad connection, squash the guillotine (item A) on the wires with a pair of pliers before closing the cap (item B) on the instant connector.

Install the electrical current

Connect the wires on the vehicle's battery

ATTENTION!: Connect the RED wire(+) first

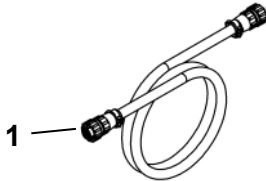
- The red wire (+) on the battery's positive post.
The black wire (-) battery's negative post.



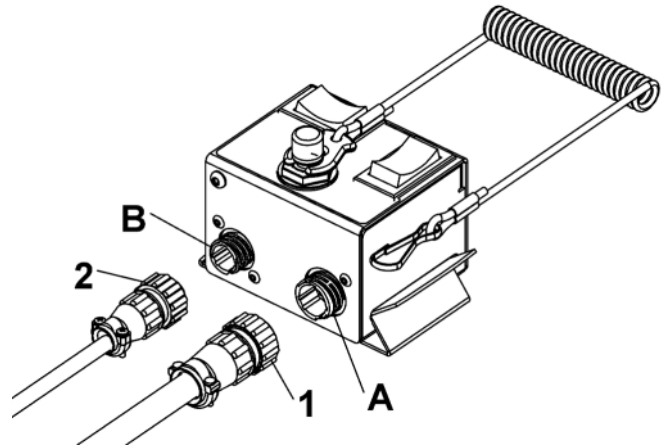
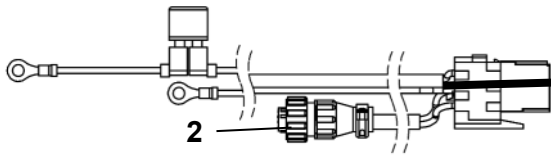
ASSEMBLY

Connect the round connectors to the control box:

Screw the wire assembly (item 1) on post A.



Screw the supply (item 2) on post B



Route and secure all the wires :

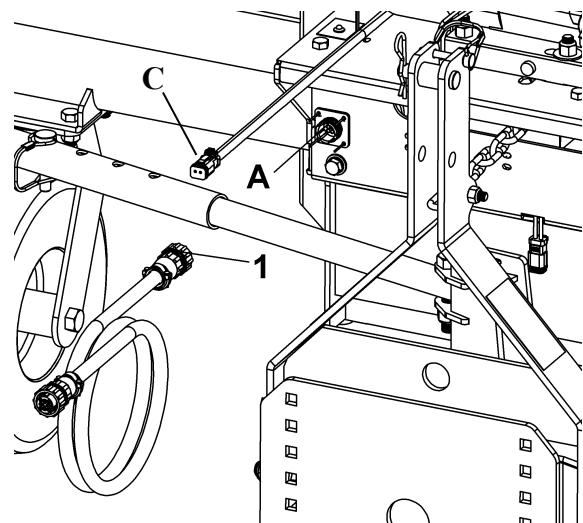
Make sure to correctly route the wires:

- Do not thread the electrical cables over sharp edges.
- Do not thread the electrical cables close to or through moving parts.
- Do not thread the electrical cables close to or through hot parts.
- Avoid pinch points or abrasive ones.

Secure in place with nylon tie wraps.

Connect the round connectors to the broom

Screw the other extremity of the wire assembly (item 1) on post A on the broom.



NOTE: The wire for the limit switch (item C) is required only if the broom is raised using the vehicle's winch.

ASSEMBLY

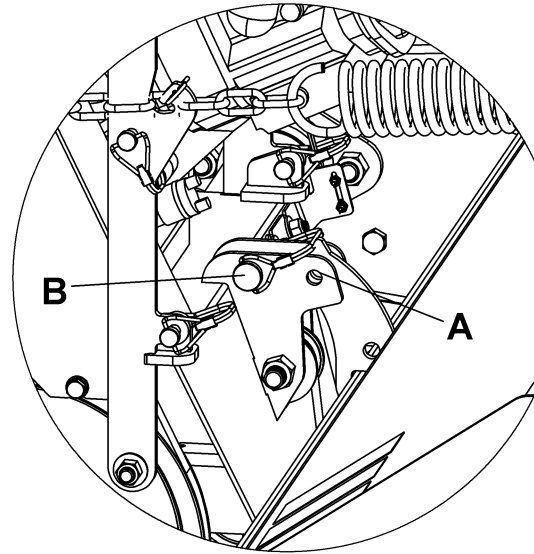
STEP 5: **PREPARATIONS BEFORE OPERATING**

Do not forget these following points before operating.

1) **Remove the lock pin (item A) that blocks the brush on the broom.**

TIP: Remove the tension off the springs to make it easier to remove this pin.

Put the pin in the hole beside it (item B) for safekeeping.

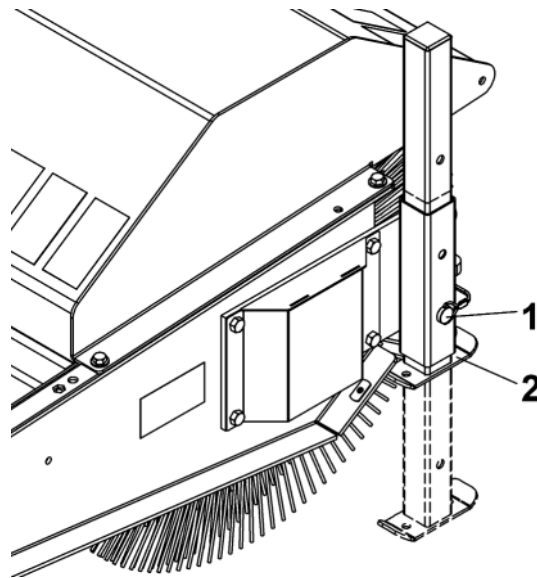


2) **Make all the required adjustments:**

- See Adjustment section in this manual
- See Adjustment section in the manual included with the subframe or the broom adaptor.
- See the Adjustments included with the different options.

3) **Make sure the parking stand is in the raised position:**

See Adjustment section in this manual











4) **Make sure that everything is safely and well connected, installed and functional.**

- See instructions in this manual.
- See instruction the manual included with the subframe or the broom adaptor.
- See instructions included with the different options.

OPERATION

FAMILIARIZATION WITH CONTROLS

	WARNING	
<p>Read carefully the owner's manual for the vehicle, the engine and the accessory (including the instructions in the manual for the subframe, broom adaptor and the options. Be thoroughly familiar with the controls & proper use of the attachment. Know how to stop the accessory quickly.</p>		
	WARNING	
<p>Never start the accessory when it is engaged.</p>		
	WARNING	
<p>When starting the engine on the accessory, make sure:</p> <ul style="list-style-type: none">-The accessory is disengaged-The vehicle's hand brake is activated.-To lift the accessory off the ground.		

	WARNING	
<p>TO PREVENT INJURIES AND FOR MORE TRACTION WHEN USING THE ACCESSORY:</p> <ul style="list-style-type: none">-Do not drive faster than 3 km/hr (2 m/hr) with an accessory on the ground.-Do not drive faster than 10 km/hr (6 m/hr) with the accessory in raised position.-Do not operate on a slope greater than 10°.-Ear muffs, dust mask, safety glasses and gloves are recommended.		



The green LED is turned on when the accessory is disengaged. The LED is located near the engine.

DANGER:
It is the person who installs the engine and the control's responsibility to make sure the engaging system works well and that the broom disengages effectively at all times. It is imperative to make the necessary adjustments if necessary.



Item 1: Emergency switch
Press the emergency switch and hold it down 5 seconds to stop the equipment.

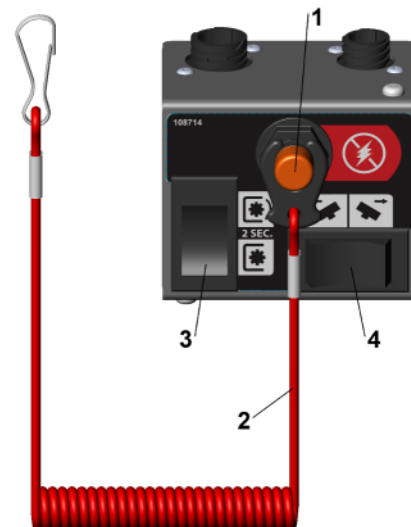
Item 2: Lanyard
Pulling the lanyard to disconnect from emergency switch will quickly stop the equipment. Links the operator to the control box. If the operator leaves his seat without stopping the equipment, the cable will disconnect from the emergency switch and the equipment will stop.

Item 3: Engaging switch
(Press towards the top for 3 seconds to engage the belt).
(Press towards the bottom for 3 seconds to disengage the belt).

Item 4: Angling switch
(Press towards the right to angle broom towards the right).
Press towards the left to angle broom towards the left).

Before operating: Make the required adjustments indicated in the "Adjustments" section. Make sure the parking stands are in the raised position before operating the equipment.

	WARNING	
<p>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.</p> <p>IT IS THE OPERATOR'S RESPONSIBILITY</p> <p>To make sure that the lanyard is well installed so the equipment stops when the operator leaves the seat.</p> <p>IF REQUIRED:</p> <p>Shorten the lanyard making sure it retains its original and adequate resistance.</p>		



OPERATION

RAISING AND LOWERING THE ROTARY BROOM:

- A) If the broom is raised using the vehicle's winch, use the winch switch control to raise and lower the rotary broom.
- B) If the broom is not raised using the vehicle's winch, see instructions included with the subframe or broom adaptor to raise or lower the rotary broom

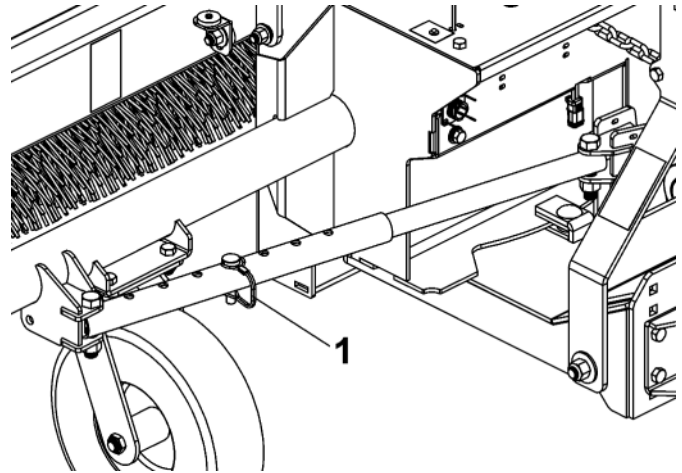
ADJUSTING THE ANGLE

Manual angling:

- Park the vehicle on a flat surface.
- Disengage the accessory.
- Stop the vehicle and the accessory's engine.
- Remove the pin (item 1) .
- Push or pull a corner of the accessory to angle the accessory into the desired position, put the pin back in place to lock the desired angle.

With the electrical angling kit (OPTION):

- Make sure the broom is free of obstacles to freely angle.
- Push on the switch from right to left to angle the broom in the desired direction.



GENERAL SWEEPING

Minimize dust by reducing brush speed and by sweeping after rain or on a day with high moisture. The ground must quite firm to support the broom. The brush is supported by dolly wheels that could become stuck in soft ground.

SNOW SWEEPING

The broom works well for light snow removal. Decrease the pressure (light pressure) on the brush for snow removal.

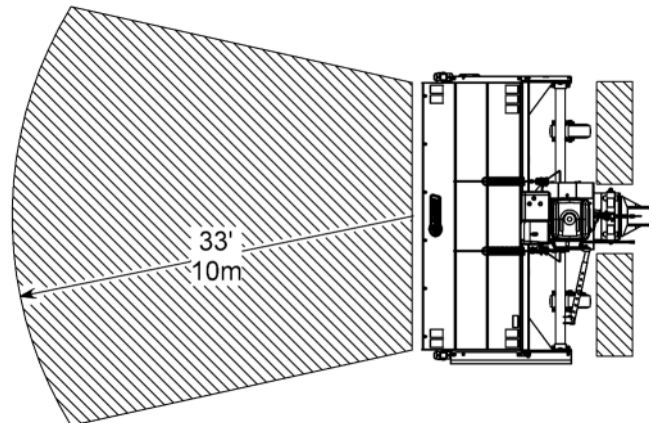
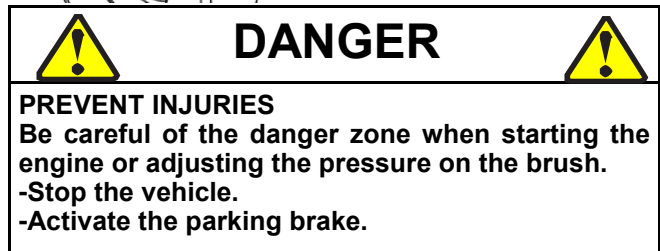
Sweep with the wind blowing in the direction of broom discharge (wind in your back).

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

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

LAWN DETHATCHING AND LEAF RAKING:

NOTE: It is recommended to use the side wheel support kit when used for detatching uneven ground. Lower the broom on a hard surface and adjust the height of the brush 1" from the ground. The brush is supported by dolly wheels. (The ground must be able to support the weight of the broom).With the side wheel kit, lower the brush on a hardsurface and adjust the height of the brush to 1" off theground. This adjustment is normally satisfactory but you may raise or lower depending upon height of the grass. Low brush speed and ground speed is best for lawn dethatching and leaf raking.



ADJUSTMENTS

MISCELLANEOUS ADJUSTMENTS :

Make all the required adjustments that are included in the instructions supplied with the subframe, broom adaptor or with the different options.

VERIFY TIRE PRESSURE:

Verify and adjust the pressure in the tires as follows:
Tires on the broom: 40 psi
The pressure in the tires must be equal on both sides.

ADJUSTING THE PRESSURE OF THE BRUSH ON THE GROUND:

- Remove the pin (item 1) that holds the arm..
- If applicable, remove the pin (item 2) that holds the chain surplus.
- Remove the hair pin (item 3).
- Pull on the arm (item 4) and move it to the side to remove tension on the springs.

To remove pressure on the brush on the ground:

- Reduce the number of chain links between the spring and the hook.

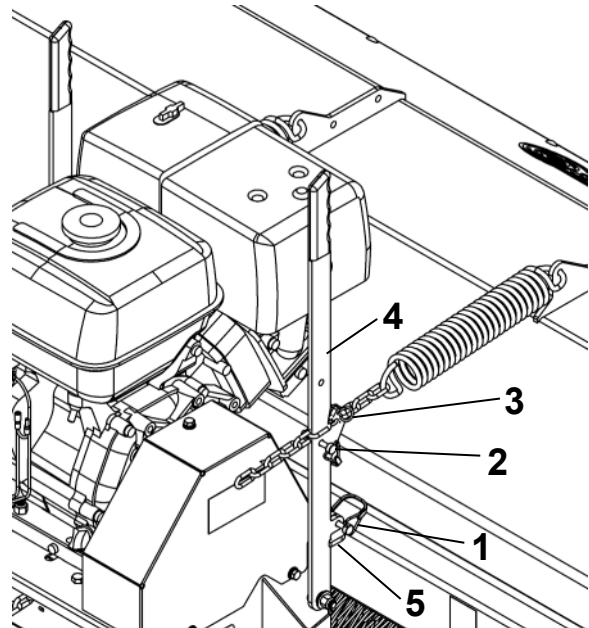
To increase pressure on the brush on the ground:

- Increase the number of links between the spring and the hook.

Pull on the arm (to avoid the springs) to put back in place against it's stopper (item 5).

Put the pins back in place.

Follow the same procedure on the other sides to get the same number of chain links on the two springs.

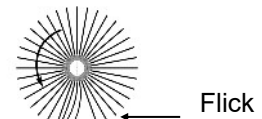
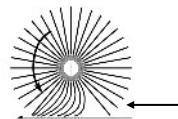


Adjust the pressure on the brush

IMPORTANT: Frequently adjust pressure on the brush to compensate the wearing out of the brush. Always use the tips of the bristles (sweep pattern 2 to 4" max) like a broom and not sides of the bristles like a mop. Too much pressure could reduce the brush's life span to up to 95%.

Never sweep with the sides of bristles!

Sweep with the tips!
Do not mop!



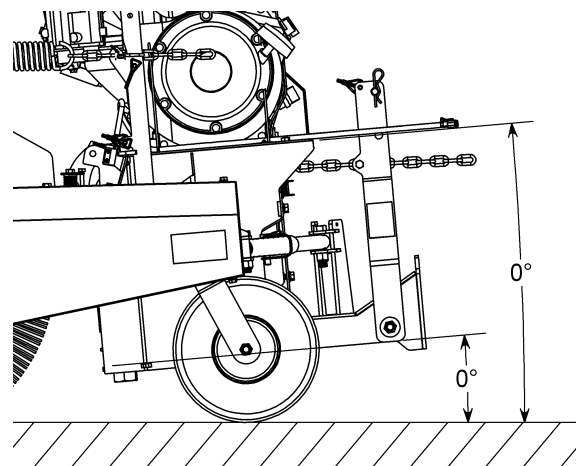
Too much pressure=
Shortens brush life!

Sweep pattern 2 to 4" max

BROOM LEVELING:

IMPORTANT: A broom that is not adjusted level will produce a tapered sweeping pattern when angled and wear the bristles out faster on one end. The subframe should be parallel to the ground as much as possible to allow the wheels to swivel freely.

To level the push frame of the broom and prevent improper wearing of the bristles, make the proper adjustments by following the instructions supplied with the subframe or the adaptor for rotary broom.



ADJUSTMENTS

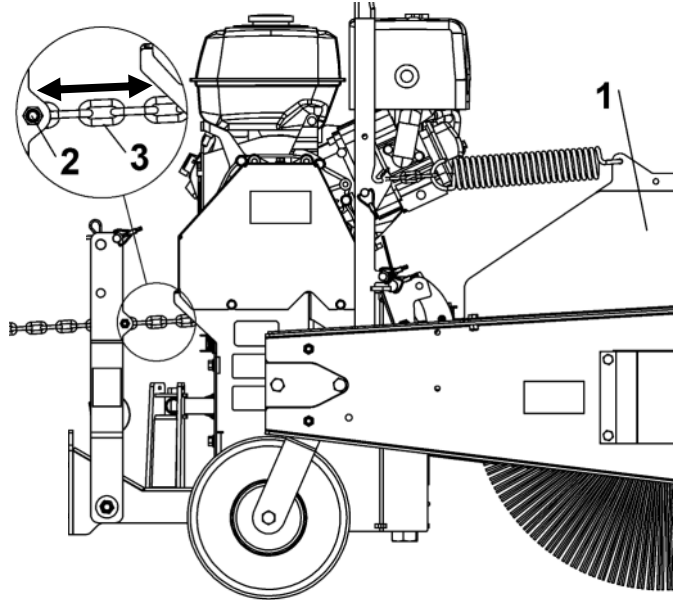
ADJUSTING THE BROOM HEIGHT :

If necessary, depending on the wear of the brush, it is possible to lengthen the lift cable to reduce the lifting height.

To adjust the height:

- Put the brush on the ground.
- Support the brush head (item 1) with some axle stands.
- Remove the bolts and nuts (items 2).
- Pull the chain of the lift cable (item 3).
- Put the lift lever to about vertical position.
- Put the bolts and nuts (items 2) back into the closest link to secure the lift cable.

Redo as necessary according to the desired lift height.

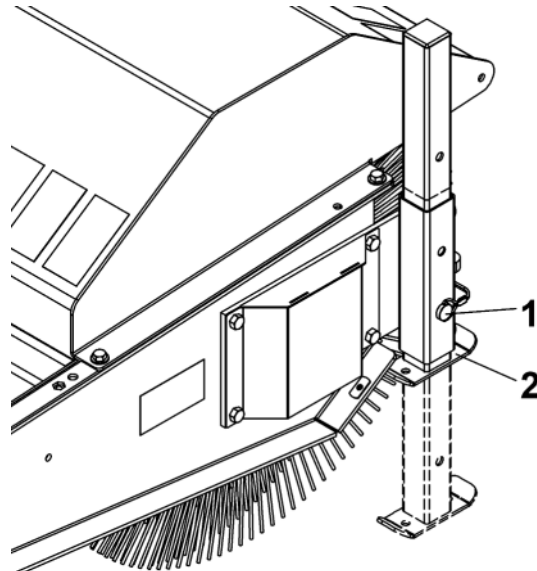


ADJUSTING THE PARKING STANDS

To lift and lower the parking stands:

- Raise the brush.
- Use the axle stands to make sure the brush does not fall.
- Remove the pin (item 1).
- Lift or lower the parking stand (item 2).
- Put the pin back in. (item 1).

IMPORTANT: Always make sure that the parking stands are raised before using.



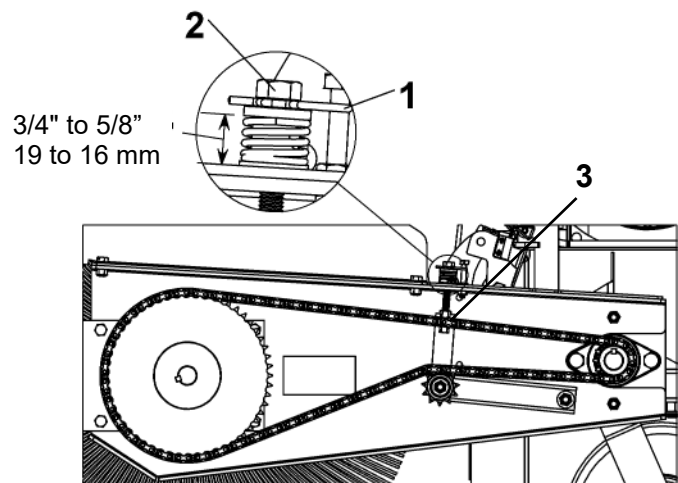
ADJUSTING THE TENSION ON THE CHAIN:

Make sure the enough tension on the chain.

Measure the indicated distance.

Remove the hair pin from the bender (item 1),
Screw the bender (item 2) to compress the spring to the indicated distance.

NOTE: This screw should be easy to screw, lubricate the threads on the nut (item 3) if needed. Replace the pin to the bender to lock its rotation and keep this adjustment.



MAINTENANCE

ALWAYS PRACTICE SAFE MAINTENANCE

Before doing any maintenance or dismounting an accessory, refer to the **safety precautions**.

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

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

MAINTENANCE

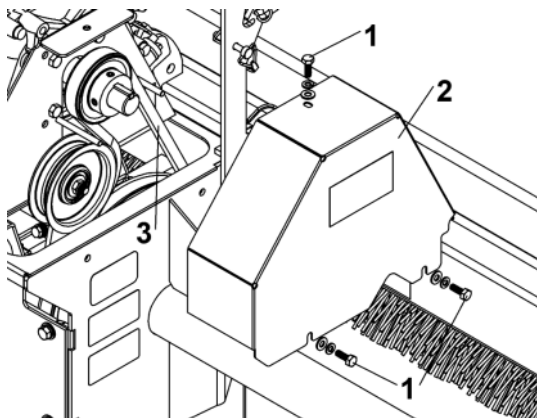
- a) Grease the wheel axles after every eight hours of use.
- b) Chain: do not lubricate when used in dusty conditions. After use, wash clean and lubricate.
- c) Frequently clean the interior and exterior of hood, dirt, mud, ice, etc, accumulation adds weight on the brush and could result in premature wear of brush.
- d) Check mounting bolts at frequent intervals for proper tightness to be sure equipment is in safe working conditions.
- e) Apply oil at all pivot points.
- f) Inspect the air filter on the vehicle and accessory every day. Clean it or replace it when necessary. Change the oil more often when working in dusty conditions. See the owner's manual for the vehicle or for the accessory.
- g) Also see the instructions supplied with the subframe and broom adaptor.
- h) See engine manual for it's maintenance.

IMPORTANT: Depending of the engine application and operation conditions, the engine may not reach the normal operating temperature and may increase the contaminants level in the engine oil. It is recommended to check the engine oil before each operation and to change the engine oil if the level is found to above the maximum level.

BELT REPLACEMENT:

For belt part numbers, refer to parts breakdown section for parts identification.

- a) Remove the three bolts (item 1) and the flat washers.
- b) Remove the belt guard (item 2).
- c) Replace the belt (item 3).
- d) Engage the accessory.
- e) Make sure the pulleys are well aligned.
- f) Disengage and reinstall the belt guard.



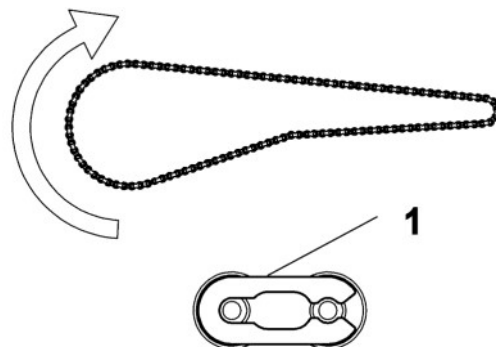
BRUSH REPLACEMENT:

See parts breakdown section for parts identification.

- a) Lower the chain idler sprocket.
- b) Remove the chain by removing the connection link.
- c) Remove the bolts from both flangettes that holds the brush shaft.
- d) Remove the brush shaft from the broom frame.
- e) Remove the push plate that holds the brushes.
- f) Remove the brush or all the brushes sections that are worn out.
- g) For 66" broom only: reinstall the brushes sections (a flat brush at each end) one at a time by rotating each section 1/4 turn from the other (always rotate in the same direction).
- h) Install the new brush by reversing the procedure.

VERY IMPORTANT:

Reinstall the connecting link (item 1) in the same way as shown in the drawing.



TRANSPORTATION

TRANSPORTING THE ACCESSORY

IMPORTANT:

- Reduce the vehicle's ground speed when turning and leave enough space so the accessory does not come into contact with obstacles such as buildings, trees or fences. Be extra careful when using the side wheel support kit.
- When traveling on roads, transport in a way that faster moving vehicles can pass you safely.
- Reduce speed when traveling over rough and uneven ground.
- Always look down and behind before and during the maneuver, if you have to back up with the accessory.



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 **10 degrees MAX.**



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 & STORAGE

DISMOUNTING

- a) Select a flat horizontal surface, set parking brake, stop the engine, and remove the ignition key to prevent accidental starting.
- b) Straighten the broom perpendicular with the vehicle.
- c) Lower the parking stands to the ground. Make sure the brush bristles never touch the ground.
- d) Lower the broom to the ground.
- e) See instructions supplied with the subframe or the adaptor for rotary broom to dismount the equipment from the vehicle.
- f) Disconnect the wires.
- g) Remove the vehicle.

END OF SEASON STORAGE

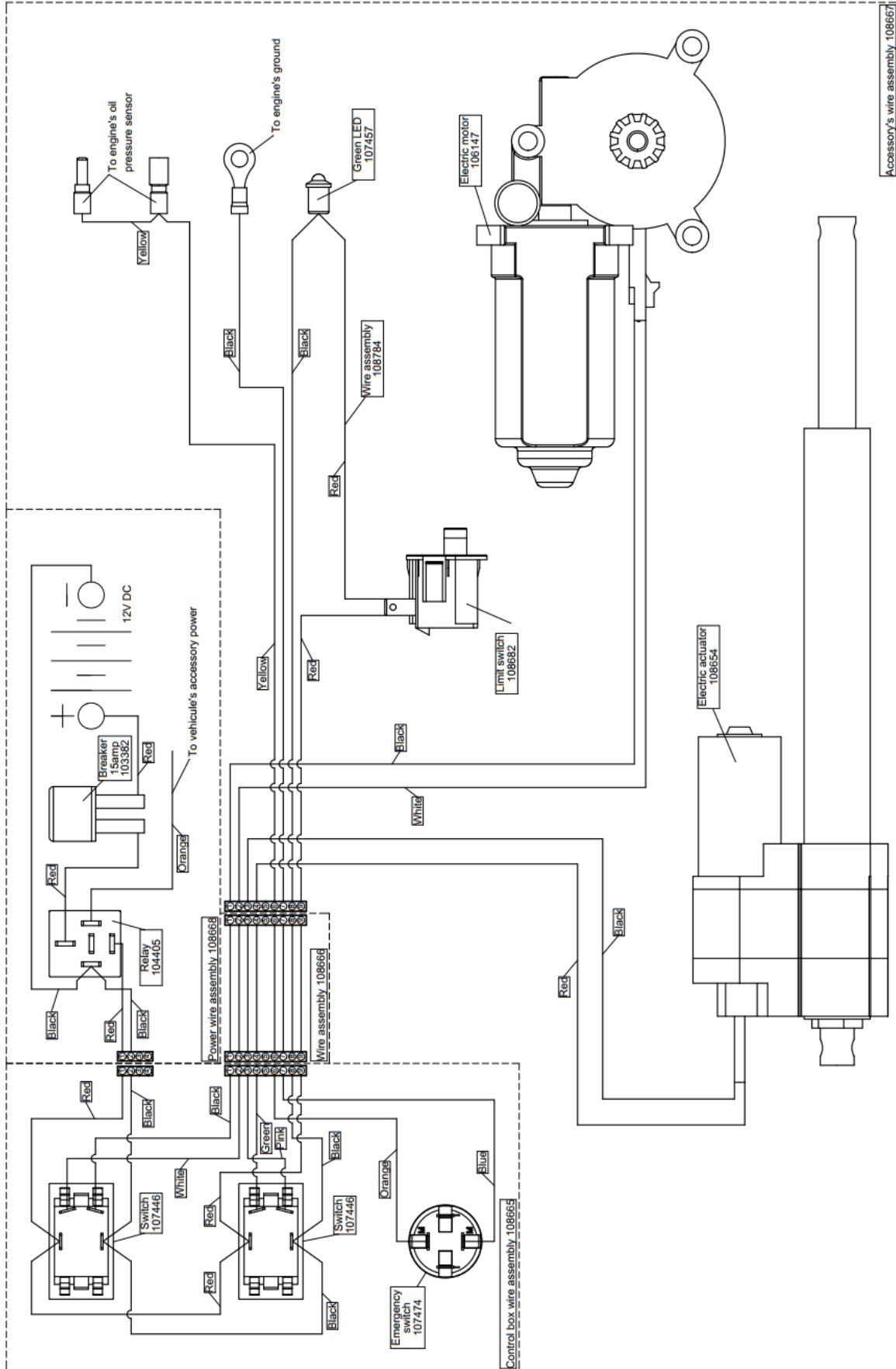
- a) Clean the broom and inside of the hood and paint all the parts where the paint has worn off.
- b) Take note of the replacement parts needed for next season.
- c) Check the engine storage recommendations.
- d) Lubricate all grease fittings and all moving parts.
- e) Store broom on parking stands on a flat horizontal surface. Make sure the brush bristles never touch the ground.
- f) If brush bristles are exposed to direct sunlight, protect the bristles with a tarp.
- g) Store the broom in a dry place.

TROUBLESHOOTING

* Please refer to parts breakdown section for parts identification.

PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
Brush wears out prematurely or does not wear out evenly. The brush turns jerkily or bounces.	The pressure on the brush is not well adjusted. Too much pressure on the brush, it will wear out up to 5 times faster.	Reduce the pressure on the brush when on the ground. Adjust when needed to compensate for the wearing out of the brush. Always sweep with the tips of the bristles like a broom and not with the sides of the bristles like a mop.
The brush does not sweep well.	Debris accumulation.	Clean the inside and outside of the hood frequently during operation. Dirt, mud, ice, etc.. accumulation adds weight on the brush and could result in premature wear of the brush.
The brush is too aggressive when lawn dethatching or leaf raking.	Too much pressure on the brush.	Lower the broom on a hard surface and lift brush 1" from the ground NOTE: It is recommended to use the side wheel support kit when used for dethatching uneven ground.
The chain wears out prematurely.	Inappropriate lubrication.	Do not lubricate the chain during operation. Wait until the job is finished. Wash the rotary broom and lubricate the chain. Let the broom turn a few moments so the oil penetrates in the chain.
The bristles take a bad form or shape.	The broom was not stored on the parking stands.	Wash the broom with warm water or warm steam. Leave in raised position and let it turn a few turns. The brush should take its original shape.
Electric motor does not work (Tension system)	Motor overheating.	These motors are equipped with an internal protector. Wait 10 minutes before using.
The sprocket wears out prematurely.	Chain is not adjusted.	Check the chain adjustment frequently (too tight, too loose).
Loss of steering.	Too much pressure on the brush.	Reduce pressure on the brush. If problem persists, contact your dealer for more information.

ELECTRIC DIAGRAM



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.

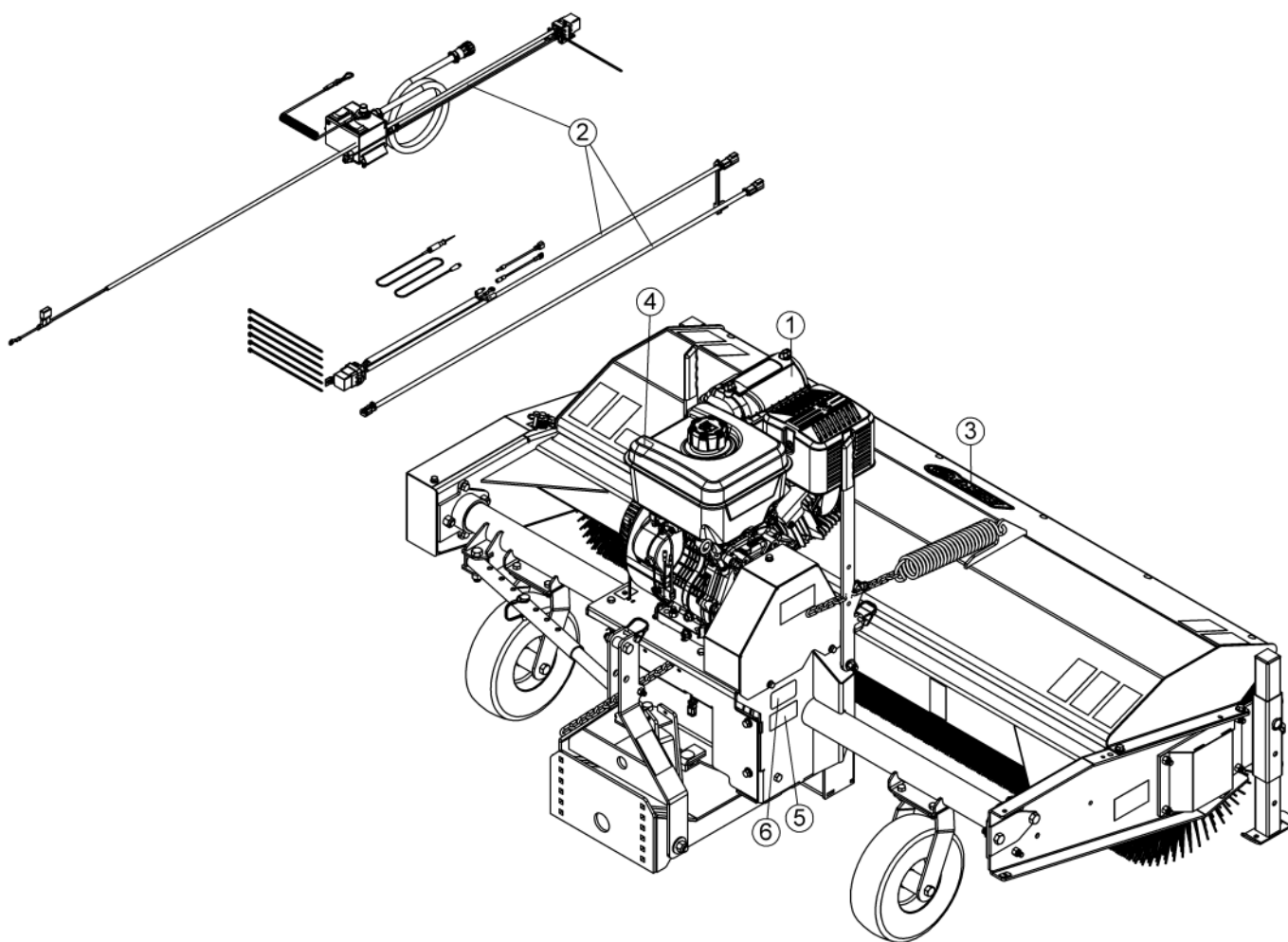
* Thick nuts must be used with grade 8 bolts

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

NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST
Balai rotatif 18" x 60" a/ Vanguard 400 (14cv) #700853-1
Rotary broom 18" x 60" w/ Vanguard 400 (14hp) #700853-1

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Rotary broom 18" x 60", Vanguard 400 engine (14hp)	Balai rotatif 18" x 60", moteur Vanguard 400 (14cv)	1	501501
2	Packaged control box	Boîte de contrôle emballée	1	501392
3	Berco decal	Décalque Berco	1	102471
4	Specifications decal	Décalque spécifications	1	REF.
5	Serial number	Numéro de série	1	REF.
6	Made in Canada decal	Décalque Fabriqué au Canada	1	REF.

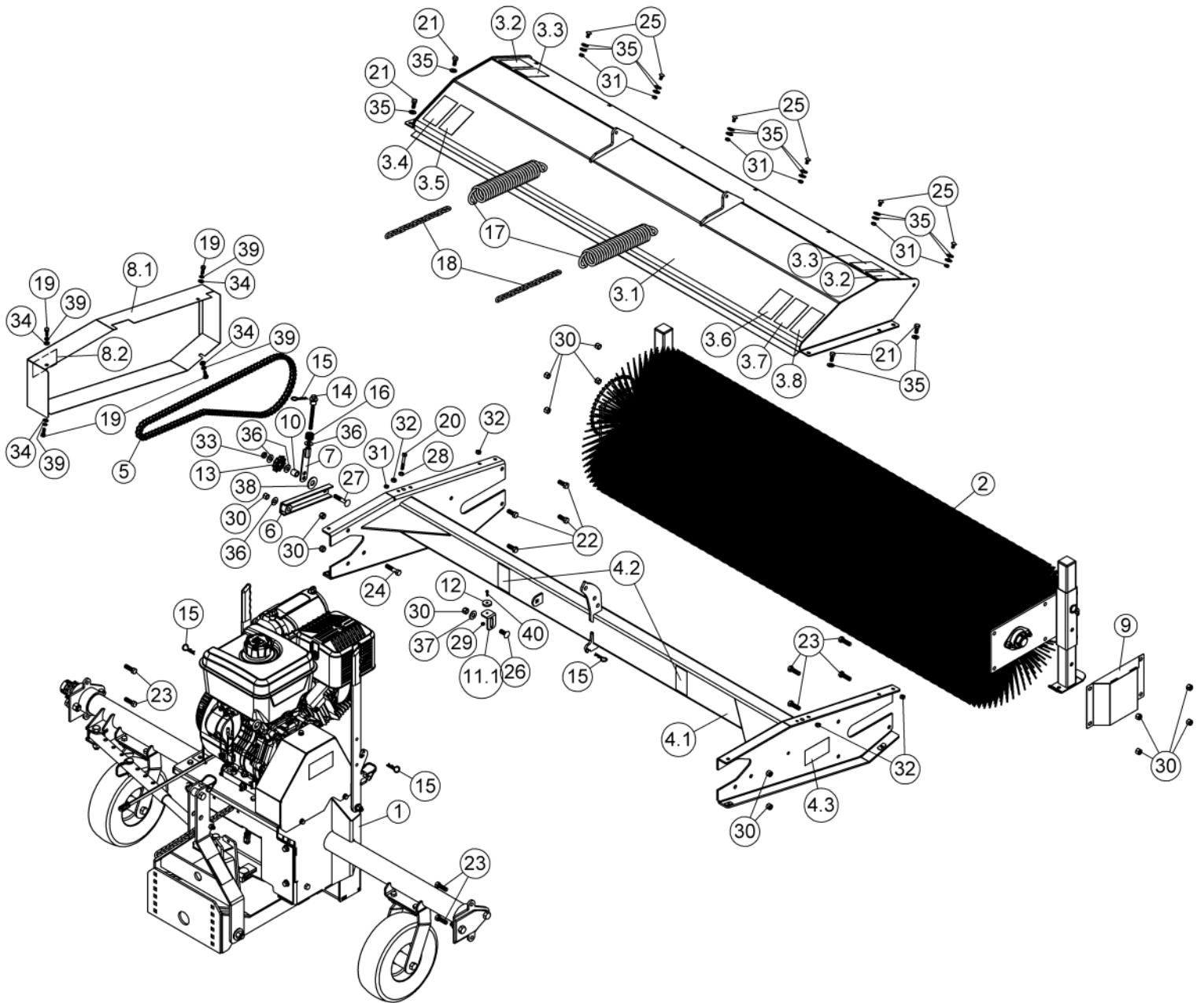


O/L = Obtain Locally / Obtenir localement

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

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
 Balai rotatif 18" x 60", moteur Vanguard 400 (14cv) #501501
 Rotary broom 18" x 60", Vanguard 400 engine (14hp) #501501



NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST
Balai rotatif 18" x 60", moteur Vanguard 400 (14cv) #501501
Rotary broom 18" x 60", Vanguard 400 engine (14hp) #501501

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Vanguard 400 engine (14hp) assembly	Moteur Vanguard 400 (14cv) assemblé	1	501500
2	Brush assembly 18" x 60"	Brosse assemblée 18" x 60"	1	501502
3	Hood 60" #108699 w/ safety decals	Capot 60" #108699 a/ déc. de séc.	1	108760
3.1	Hood 60"	Capot 60"	1	108699
3.2	Decal Caution Projections	Décalque Attention Projections	2	108557
3.3	Decal Danger Chute	Décalque Danger Goulotte	2	108553
3.4	Decal Read Instructions	Décalque lire Instructions	1	108551
3.5	Decal Maintenance	Décalque Maintenance	1	108556
3.6	Decal Warning / Wear Safety Glasses	Dec. Avertissement / Porter des Lunettes de sécurité	1	108747
3.7	Decal Warning / Wear Safety Mask	Dec. Avertissement / Porter un Masque de protection	1	108748
3.8	Decal Warning / Wear Safety Ear muffs	Dec. Avertissement / Porter des Coquilles protectrices	1	108749
4	Brush frame 60" #109665 w/ safety decals	Châssis de brosse 60" #109665 a/ déc. de séc.	1	109666
4.1	Brush frame 60"	Châssis de brosse 60"	1	109665
4.2	Decal Warning / Crush Harsard	Dec. Avertissement / Risque d'écrasement	2	108750
4.3	Decal Danger Belts	Décalque Danger Courroies	2	108552
5	Roller chain #40 x 110 links/conn.link	Chaîne #40 x 110 mailles/maille acc.	1	109664
6	Idler lever	Levier tendeur	1	108705
7	Bender	Tendeur	1	108704
8	Chain guard #109667 w/ safety decal	Garde-chaîne #109667 a/ déc. de séc.	1	109668
8.1	Chain guard	Garde-chaîne	1	109667
8.2	Decal Danger Belts	Décalque Danger Courroies	1	108552
9	Bearing cover	Couvercle de roulement	1	108745
10	Sleeve	Douille	1	105403
11	Square	Équerre	1	108450
12	Magnet	Aimant	1	106037
13	Idler sprocket	Pignon tendeur	1	102027
14	Spring holder	Support de ressort	1	106676
15	Hair pin 2.5mm	Goupille à ressort 2.5mm	4	102013
16	Compression spring	Ressort de compression	1	106643
17	Spring	Ressort	2	102918
18	Chain	Chaîne	2	104812

O/L = Obtain Locally / Obtenir localement

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NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST
Balai rotatif 18" x 60", moteur Vanguard 400 (14cv) #501501
Rotary broom 18" x 60", Vanguard 400 engine (14hp) #501501

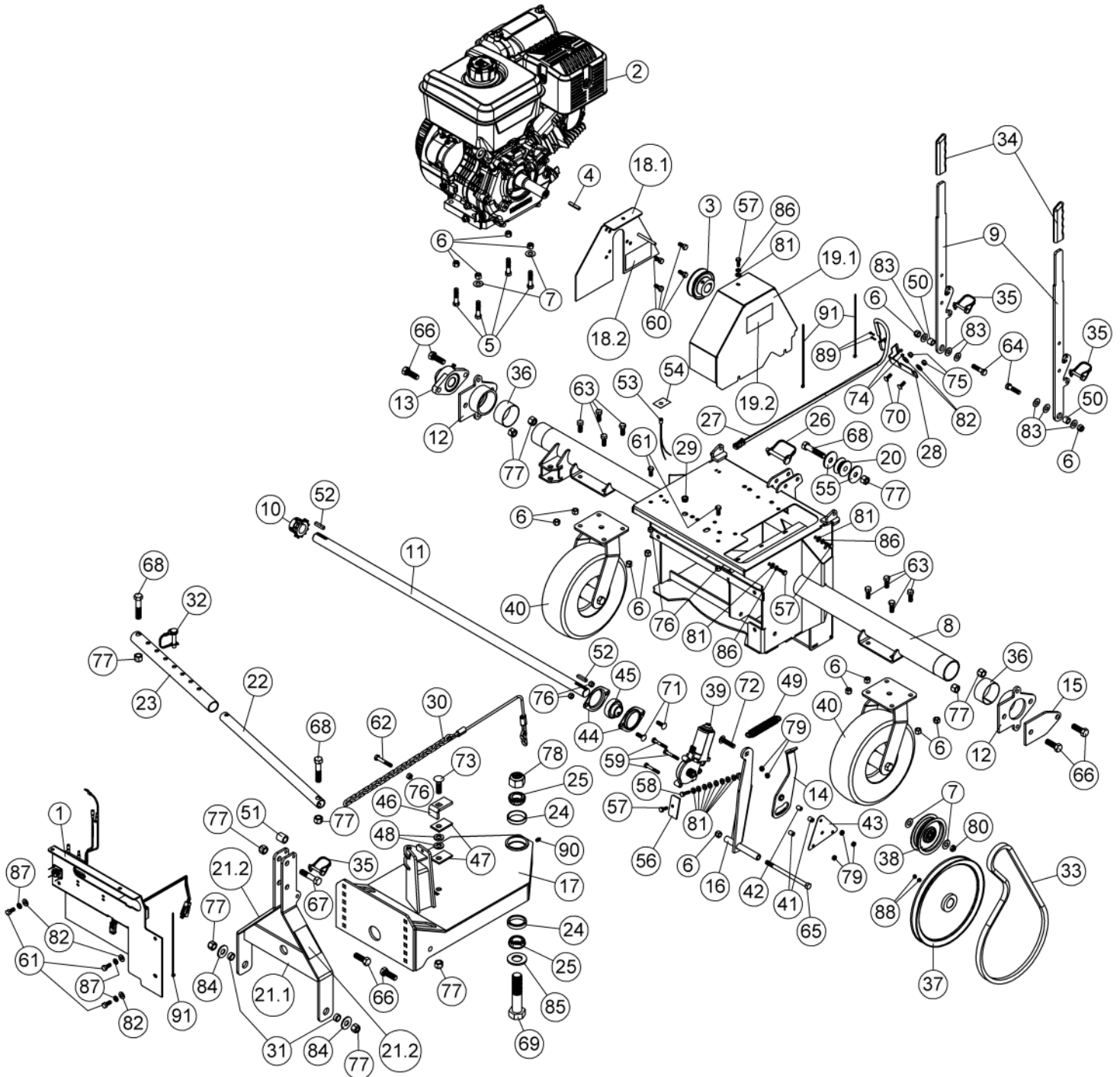
REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
19	Hex. bolt 1/4" n.c. x 3/4" GR5	Boulon hex. 1/4" n.c. x 3/4" GR5	4	O/L (300NC.5P_1-4x3-4)
20	Hex. bolt 1/4" n.c. x 1 3/4" GR5	Boulon hex. 1/4" n.c. x 1 3/4" GR5	1	O/L (300NC.5P_1-4x1-3-4)
21	Hex. bolt 5/16" n.c. x 3/4" GR5	Boulon hex. 5/16" n.c. x 3/4" GR5	4	O/L (300NC.5P_5-16x3-4)
22	Hex. bolt 3/8" n.c. x 1" GR5	Boulon hex. 3/8" n.c. x 1" GR5	4	O/L (300NC.5P_3-8x1)
23	Hex. bolt 3/8" n.c. x 1 1/4" GR5	Boulon hex. 3/8" n.c. x 1 1/4" GR5	8	O/L (300NC.5P_3-8x1-1-4)
24	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)
25	Carriage bolt 1/4" n.c. x 1/2" GR5	Boulon à carrosserie 1/4" n.c. x 1/2" GR5	6	O/L (320NC.5P_1-4x1-2)
26	Carriage bolt 3/8" n.c. x 1" GR5	Boulon à carrosserie 3/8" n.c. x 1" GR5	1	O/L (320NC.5P_3-8x1)
27	Carriage bolt 3/8" n.c. x 2" GR5	Boulon à carrosserie 3/8" n.c. x 2" GR5	1	O/L (320NC.5P_3-8x2)
28	Hex. nut 1/4" n.c.	Écrou hex. 1/4" n.c.	1	O/L (330NC.P_1-4)
29	Nylon Insert lock Nut #6x32 n.c.	Écrou à garniture de nylon #6x32 n.c.	1	O/L (335NC.P_#6X32)
30	Nylon Insert Lock Nut 3/8" n.c.	Écrou à garniture de nylon 3/8" n.c.	14	O/L (335NC.P_3-8)
31	Nylon insert lock nut 1/4" n.c. (thin)	Écrou à garniture de nylon 1/4" n.c. (mince)	7	O/L (336NC.P_1-4)
32	Nylon insert lock nut 5/16" n.c. (thin)	Écrou à garniture de nylon 5/16" n.c. (mince)	4	O/L (336NC.P_5-16)
33	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)
34	Flat washer 1/4" hole	Rondelle plate 1/4" trou	4	O/L (360.P_1-4T)
35	Flat washer 5/16" hole	Rondelle plate 5/16" trou	16	O/L (360.P_5-16T)
36	Flat washer 3/8" hole	Rondelle plate 3/8" trou	4	O/L (360.P_3-8T)
37	Flat washer 7/16" hole	Rondelle plate 7/16" trou	1	O/L (360.P_7-16T)
38	Flat washer 9/16" hole	Rondelle plate 9/16" trou	1	O/L (360.P_9-16T)
39	Lock washer 1/4"	Rondelle de blocage 1/4"	4	O/L (362.P_1-4)
40	Machine screw Pan head #6 x 32 x 9/16"	Vis mécanique tête pan #6 x 32 x 9/16"	1	O/L (395NC.P_#6x32x9-16)

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NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST
Moteur Vanguard 400 (14cv) assemblé #501500
Vanguard 400 engine (14hp) assembly #501500



NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST
Moteur Vanguard 400 (14cv) assemblé #501500
Vanguard 400 engine (14hp) assembly #501500

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Guard connectors holder assembled	Garde support connecteurs assemblé	1	501384
2	Vanguard 400 engine (14 hp)	Moteur Vanguard 400 (14 cv)	1	109756
3	Pulley 3.15" with set screw	Poulie 3.15" avec vis pression	1	104833
4	Key 1/4" x 1/4" x 1 1/2"	Clé 1/4" x 1/4" x 1 1/2"	1	102327
5	Hex. bolt 3/8" n.c. x 1 3/4" GR5	Boulon hex. 3/8" n.c. x 1 3/4" GR5	4	O/L (300NC.5P_3-8x1-3-4)
6	Nylon Insert Lock Nut 3/8" n.c.	Écrou à garniture de nylon 3/8" n.c.	15	O/L (335NC.P_3-8)
7	Flat washer 7/16" hole	Rondelle plate 7/16" trou	4	O/L (360.P_7-16T)
8	Engine frame 60"	Châssis du moteur 60"	1	108701
9	Adjustment lever	Levier d'ajustement	2	108740
10	Sprocket with Set Screws	Pignon avec Vis à Pression	1	102093
11	Drive shaft 39 7/8"	Arbre de commande 39 7/8"	1	108721
12	Shoulder support	Support d'épaulement	2	108706
13	Roulement à palier	Bearing	1	108685
14	Lever	Levier	1	108707
15	Guide plate	Plaque guide	1	108722
16	Idler arm	Bras de tension	1	108708
17	Push frame	Châssis de poussée	1	108702
18	Belt guide #108710 w/ safety decal	Guide-courroie #108710 a/ déc. de séc.	1	108753
18.1	Belt Guide	Guide-courroie	1	108710
18.2	Decal Danger Belts	Décalque Danger Courroies	1	108552
19	Belt guard #108723 w/ safety decal	Garde-courroie #108723 a/ déc. de séc.	1	108751
19.1	Belt guard	Garde-courroie	1	108723
19.2	Decal Danger Belts	Décalque Danger Courroies	1	108552
20	Pulley	Poulie	1	108687
21	Lift lever #108703 w/ safety decals	Levier de relevage #108703 a/ déc. de séc.	1	108754
21.1	Lift lever	Levier de relevage	1	108703
21.2	Decal Warning / Crush Harsard	Déc. Avertissement / Risque d'écrasement	2	108750
22	Inside angling tube	Tube d'angulation intérieur	1	108725
23	Outside angling tube	Tube d'angulation extérieur	1	108726
24	Cup for bearing	Cuvette	2	108680
25	Cone bearing	Roulement conique	2	108679
26	Lock pin	Tige de verrouillage	1	103563
27	Wire assembly	Fil assemblé	1	108405
28	Sensor support	Support de capteur	1	108730
29	Split plastic grommet	Oeillet en plastique fendu	1	108728
30	Lifting cable	Câble de relevage	1	108692
31	Sleeve	Douille	2	108735
32	Lock pin	Tige de verrouillage	1	108742
33	V-Belt , B-43	Courroie en V , B-43	1	108686
34	Handgrip	Poignée	2	108736
35	Lock pin	Tige de verrouillage	3	106962
36	Nylon bushing	Coussinet de nylon	2	105323
37	V pulley	Poulie en V	1	104774
38	Flat pulley	Poulie plate	1	102765
39	Electric motor	Moteur électrique	1	106147
40	Caster wheel assembly	Roue Pivotante Assemblée	2	108367
41	Spacer	Espaceur	2	103361
42	Oil lite bushing	Coussinet imprégné d'huile	1	103362
43	Plate	Plaque	1	103363
44	Flangette	Flangette	2	102213

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NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST
Moteur Vanguard 400 (14cv) assemblé #501500
Vanguard 400 engine (14hp) assembly #501500

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
45	Bearing with set screw	Roulement à billes avec vis à pression	1	102755
46	Bracket	Fixation	1	105378
47	Spacer	Espaceur	2	105379
48	Washer	Rondelle	2	104122
49	Spring	Ressort	1	102592
50	Sleeve	Douille	2	102326
51	Sleeve	Douille	1	102480
52	Key 1/4" x 1/4" x 1 1/4"	Clé 1/4" x 1/4" x 1 1/4"	2	105399
53	Warning light	Avertisseur lumineux	1	107457
54	Warning light decal	Décalque avertisseur lumineux	1	108783
55	Washer	Rondelle	2	108794
56	Retaining shim	Cale de retenue	1	108796
57	Hex. bolt 1/4" n.c. x 3/4" GR5	Boulon hex. 1/4" n.c. x 3/4" GR5	4	O/L (300NC.5P_1-4x3-4)
58	Hex. bolt 1/4" n.c. x 1" GR5 FULLY THREADED	Boulon hex. 1/4" n.c. x 1" GR5 FILETÉ COMPLET	1	O/L (300NC.5P_1-4x1)
59	Hex. bolt 1/4" n.c. x 1 3/4" GR5	Boulon hex. 1/4" n.c. x 1 3/4" GR5	3	O/L (300NC.5P_1-4x1-3-4)
60	Hex. bolt 5/16" n.f. x 3/4" GR5	Boulon hex. 5/16" n.f. x 3/4" GR5	4	O/L (300NF.5P_5-16x3-4)
61	Hex. bolt 5/16" n.c. x 3/4" GR5	Boulon hex. 5/16" n.c. x 3/4" GR5	5	O/L (300NC.5P_5-16x3-4)
62	Hex. bolt 5/16" n.c. x 2" GR5	Boulon hex. 5/16" n.c. x 2" GR5	1	O/L (300NC.5P_5-16x2)
63	Hex. bolt 3/8" n.c. x 1" GR5	Boulon hex. 3/8" n.c. x 1" GR5	8	O/L (300NC.5P_3-8x1)
64	Hex. bolt 3/8" n.c. x 1 1/2" GR5	Boulon hex. 3/8" n.c. x 1 1/2" GR5	2	O/L (300NC.5P_3-8x1-1-2)
65	Hex. bolt 3/8" n.c. x 6" GR5	Boulon hex. 3/8" n.c. x 6" GR5	1	O/L (300NC.5P_3-8x6)
66	Hex. bolt 1/2" n.c. x 1 1/2" GR5	Boulon hex. 1/2" n.c. x 1 1/2" GR5	6	O/L (300NC.5P_1-2x1-1-2)
67	Hex. bolt 1/2" n.c. x 2 1/4" GR5	Boulon hex. 1/2" n.c. x 2 1/4" GR5	1	O/L (300NC.5P_1-2x2-1-4)
68	Hex. bolt 1/2" n.c. x 2 1/2" GR5	Boulon hex. 1/2" n.c. x 2 1/2" GR5	3	O/L (300NC.5P_1-2x2-1-2)
69	Hex. bolt 1" n.c. x 4 1/2" GR5	Boulon hex. 1" n.c. x 4 1/2" GR5	1	O/L (300NC.5P_1x4-1-2)
70	Carriage bolt 1/4" n.c. x 3/4" GR5	Boulon à carrosserie 1/4" n.c. x 3/4" GR5	2	O/L (320NC.5P_1-4x3-4)
71	Carriage bolt 5/16" n.c. x 1" GR5	Boulon à carrosserie 5/16" n.c. x 1" GR5	2	O/L (320NC.5P_5-16x1)
72	Carriage bolt 3/8" n.c. x 1 3/4" GR5	Boulon à carrosserie 3/8" n.c. x 1 3/4" GR5	1	O/L (320NC.5P_3-8x1-3-4)
73	Carriage bolt 1/2" n.c. x 1 3/4" GR5	Boulon à carrosserie 1/2" n.c. x 1 3/4" GR5	1	O/L (320NC.5P_1-2x1-3-4)
74	Nylon insert lock nut #4X40	Écrou a garniture de nylon #4X40	2	O/L (335NC.P_#4x40)
75	Nylon Insert lock Nut 1/4" n.c.	Écrou à garniture de nylon 1/4" n.c.	2	O/L (335NC.P_1-4)
76	Nylon Insert lock Nut 5/16" n.c. GR5	Écrou à garniture de nylon 5/16" n.c. GR5	5	O/L (335NC.P_5-16)
77	Nylon Insert lock Nut 1/2" n.c.	Écrou à garniture de nylon 1/2" n.c.	11	O/L (335NC.P_1-2)
78	Nylon insert lock nut 1" n.c	Écrou à garniture de nylon 1" n.c	1	O/L (335NC.P_1)
79	Nylon insert lock nut 1/4" n.c. (thin)	Écrou à garniture de nylon 1/4" n.c. (mince)	5	O/L (336NC.P_1-4)
80	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)
81	Flat washer 1/4" hole	Rondelle plate 1/4" trou	11	O/L (360.P_1-4T)
82	Flat washer 5/16" hole	Rondelle plate 5/16" trou	5	O/L (360.P_5-16T)
83	Flat washer 3/8" hole	Rondelle plate 3/8" trou	6	O/L (360.P_3-8T)
84	Flat washer 9/16" hole	Rondelle plate 9/16" trou	2	O/L (360.P_9-16T)
85	Flat washer 1 1/16" hole	Rondelle plate 1 1/16" trou	1	O/L (360.P_1-1-16T)
86	Lock washer 1/4"	Rondelle de blocage 1/4"	3	O/L (362.P_1-4)
87	Lock washer 5/16"	Rondelle de blocage 5/16"	3	O/L (362.P_5-16)
88	Socket head set screw 5/16" n.c. x 5/16"	Vis pression tête plate 6PC 5/16 n.c. x 5/16"	2	O/L (391NC.N_5-16x5-16)
89	Machine screw pan Head #4X40 x 1-2	Vis mecanique tete pan #4X40 x 1-2	2	O/L (395NC.P_#4x40x1-2)
90	Grease fitting 1/4" n.f.	Graisser 1/4" n.f.	1	O/L (370.Z_1-4-NF)
91	Tie wrap 8" (black), 50lbs, Weather & UV-Resistant nylon 6.6	Attache de nylon 8" (noir) ,50lbs, Weather & UV-Resistant nylon 6.6	3	O/L (426-8)

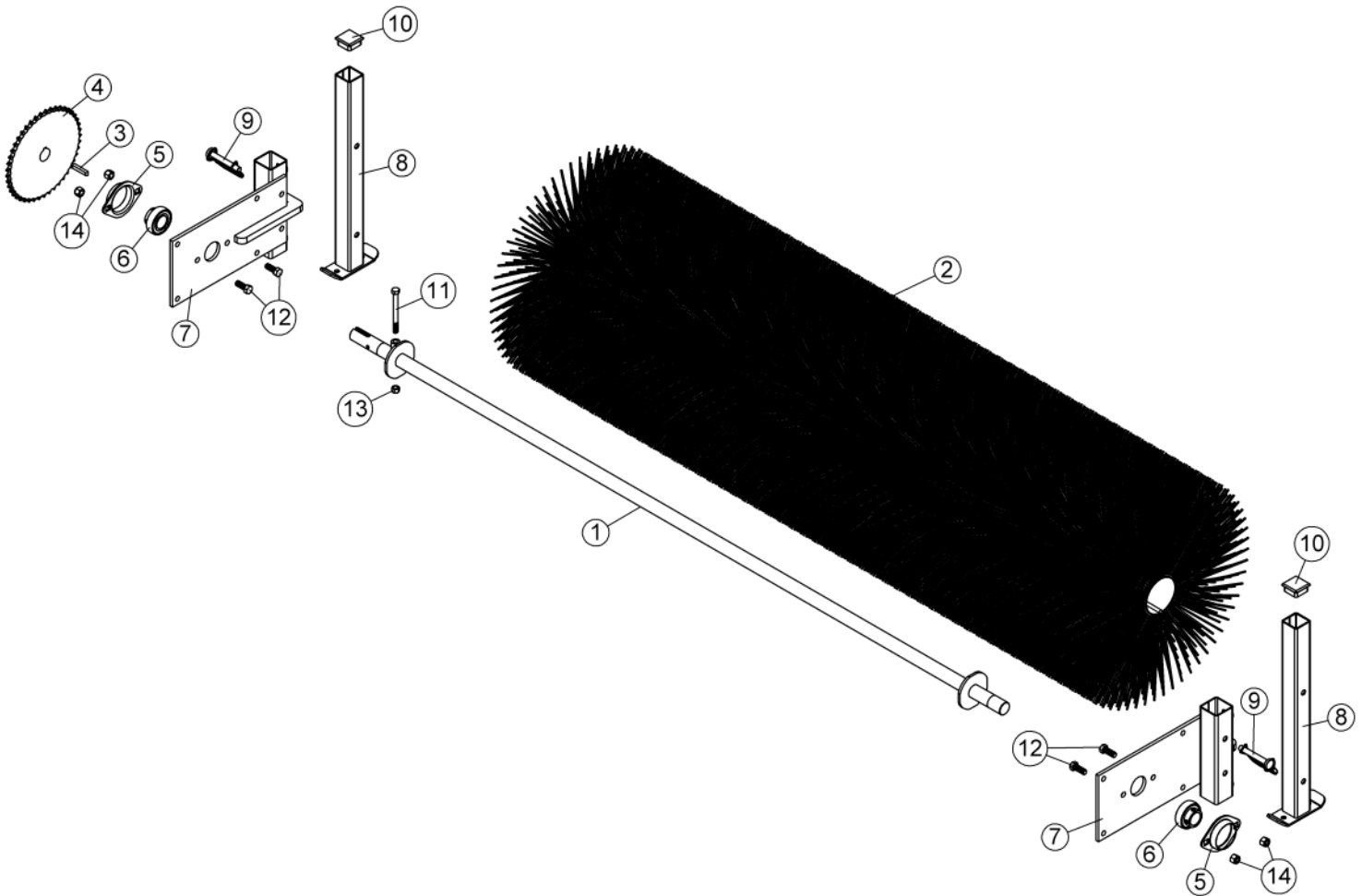
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NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST
Brosse assemblée 18" x 60" #501502
Brush assembly 18" x 60" #501502

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Brush hollow shaft 60"	Arbre de brosse 60"	1	108697
2	Polypropylene brush	Brosse de polypropylène	1	104459
3	Rounded ends key 1/4" x 1/4" x 1.500"	Clé à bouts arrondis 1/4" x 1/4" x 1.500"	1	108183
4	Sprocket with Set Screws	Pignon avec Vis à Pression	1	109663
5	Flangette	Flangette	2	102680
6	Bearing with set screw	Roulement à billes avec vis à pression	2	102755
7	Stand holder	Support de pied	2	108711
8	Parking stand	Pied de stationnement	2	108712
9	Lock pin	Tige de verrouillage	2	103563
10	Ribbed square plug	Bouchon carré avec nervures	2	108741
11	Hex. bolt 5/16" n.c. x 3 1/2" GR5	Boulon hex. 5/16" n.c. x 3 1/2" GR5	1	O/L (300NC.5P_5-16x3-1-2)
12	Hex. bolt 3/8" n.c. x 1" GR5	Boulon hex. 3/8" n.c. x 1" GR5	4	O/L (300NC.5P_3-8x1)
13	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)
14	Nylon Insert Lock Nut 3/8" n.c.	Écrou à garniture de nylon 3/8" n.c.	4	O/L (335NC.P_3-8)



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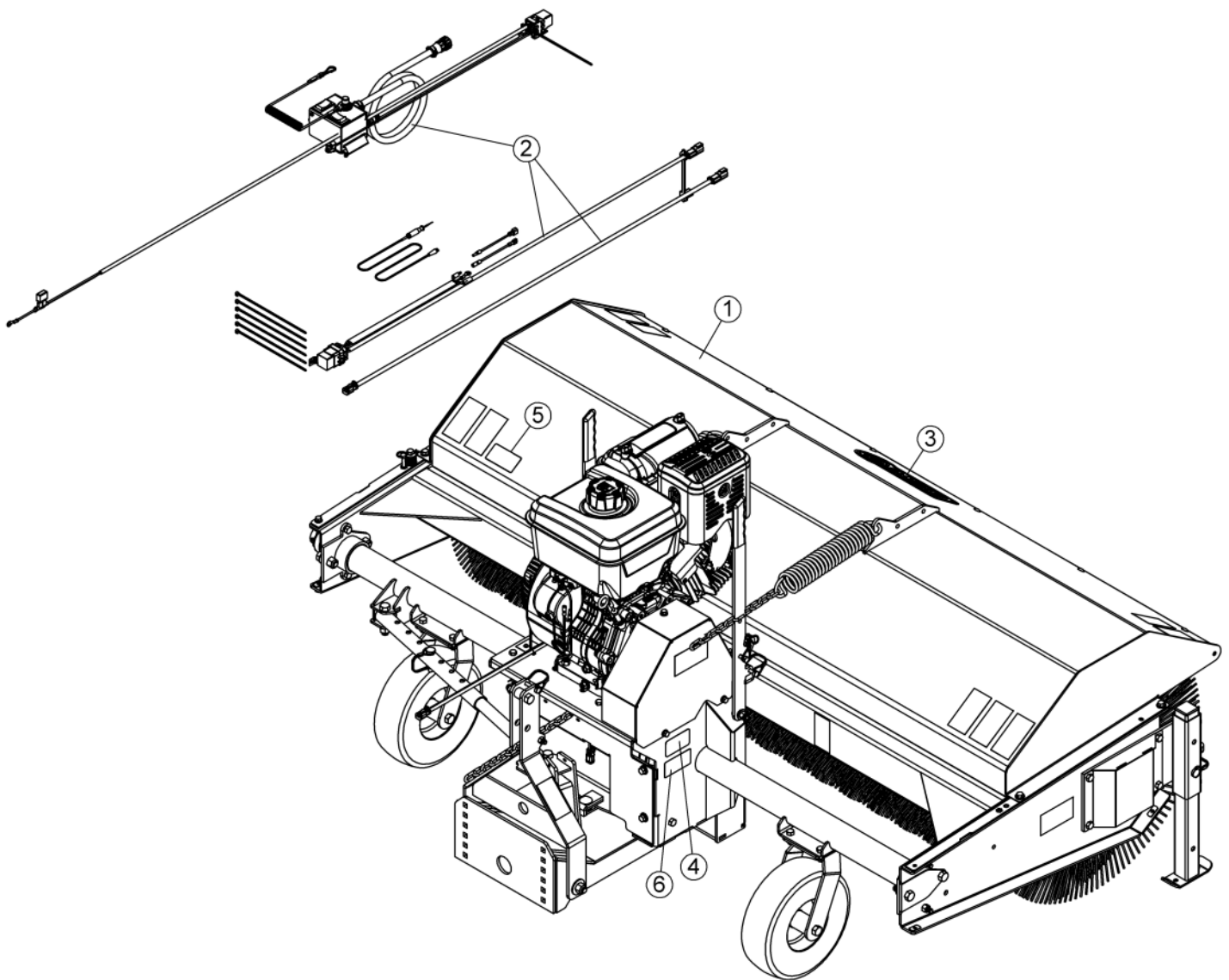
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NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST

Balai rotatif 24" x 66" a/Vanguard 400 (14cv) #700854-1
 Rotary broom 24" x 66" w/ Vanguard 400 (14hp) #700854-1

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Rotary broom 24" x 66" assembly	Balai rotatif 24" x 66" assemblé	1	501524
2	Packaged control box	Boîte de contrôle emballée	1	501392
3	Berco decal	Décalque Berco	1	103785
4	Made in Canada decal	Décalque Fabriqué au Canada	1	REF.
5	Specifications decal	Décalque spécifications	1	REF.
6	Serial number	Numéro de série	1	REF.



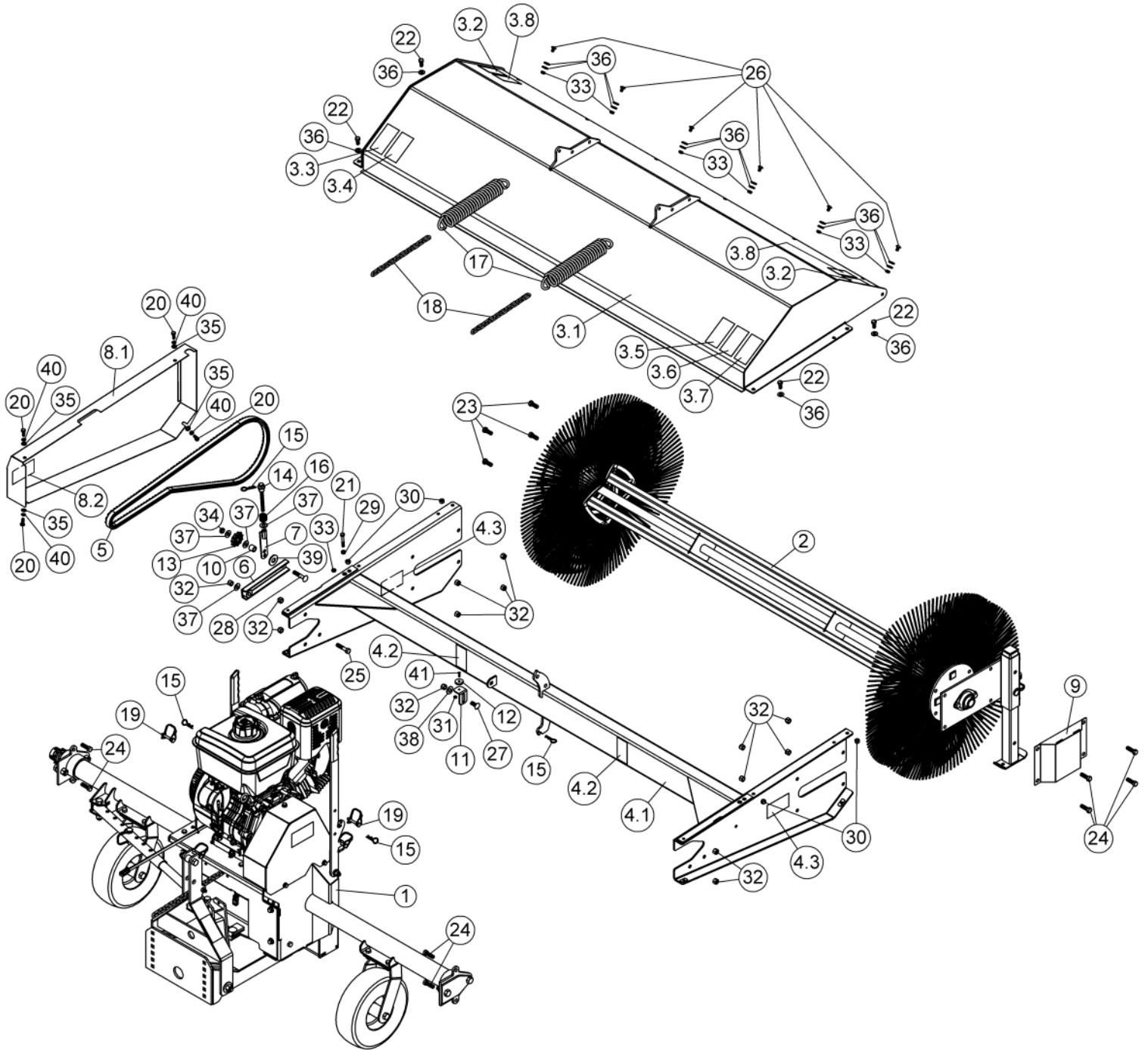
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NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST

Balai rotatif 24" x 66" assemblé #501524
Rotary broom 24" x 66" assembly #501524



NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST

Balai rotatif 24" x 66" assemblé #501524 Rotary broom 24" x 66" assembly #501524

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Vanguard 400 engine (14hp) assembly for 66" broom	Moteur Vanguard 400 (14cv) assemblé pour balai 66"	1	501523
2	Brush assembly 24" x 66"	Brosse assemblée 24" x 66"	1	501389
3	Hood 66" #108696 w/ safety decals	Capot 66" #108696 a/ déc. de séc.	1	108752
3.1	Hood 66"	Capot 66"	1	108696
3.2	Decal Caution Projections	Déc. Attention Projections	2	108557
3.3	Decal Read Instructions	Déc. lire Instructions	1	108551
3.4	Decal Maintenance	Déc. Maintenance	1	108556
3.5	Decal Warning / Wear Safety Glasses	Dec. Avertissement / Porter des Lunettes de sécurité	1	108747
3.6	Decal Warning / Wear Safety Mask	Dec. Avertissement / Porter un Masque de protection	1	108748
3.7	Decal Warning / Wear Safety Ear muffs	Dec. Avertissement / Porter des Coquilles protectrices	1	108749
3.8	Decal Danger Chute	Déc. Danger Goulotte	2	108553
4	Brush frame 66" #108695 w/ safety decals	Châssis de brosse 66" #108695 a/ déc. de séc.	1	108756
4.1	Brush frame 66"	Châssis de brosse 66"	1	108695
4.2	Decal Warning / Crush Harsard	Dec. Avertissement / Risque d'écrasement	2	108750
4.3	Decal Danger Belts	Déc. Danger Courroies	2	108552
5	Roller chain #40 x 124 links/conn.link	Chaîne #40 x 124 mailles/maille acc.	1	108684
6	Idler lever	Levier tendeur	1	108705
7	Bender	Tendeur	1	108704
8	Chain guard #108709 w/ safety decal	Garde-chaîne #108709 a/ déc. de séc.	1	108755
8.1	Chain guard	Garde-chaîne	1	108709
8.2	Decal Danger Belts	Déc. Danger Courroies	1	108552
9	Bearing cover	Couvercle de roulement	1	108745
10	Sleeve	Douille	1	105403
11	Square	Équerre	1	108450
12	Magnet	Aimant	1	106037
13	Idler sprocket	Pignon tendeur	1	102027
14	Spring holder	Support de ressort	1	106676
15	Hair pin 2.5mm	Goupille à ressort 2.5mm	4	102013
16	Compression spring	Ressort de compression	1	106643
17	Spring	Ressort	2	102918
18	Chain	Chaîne	2	104812

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NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST

Balai rotatif 24" x 66" assemblé #501524 Rotary broom 24" x 66" assembly #501524

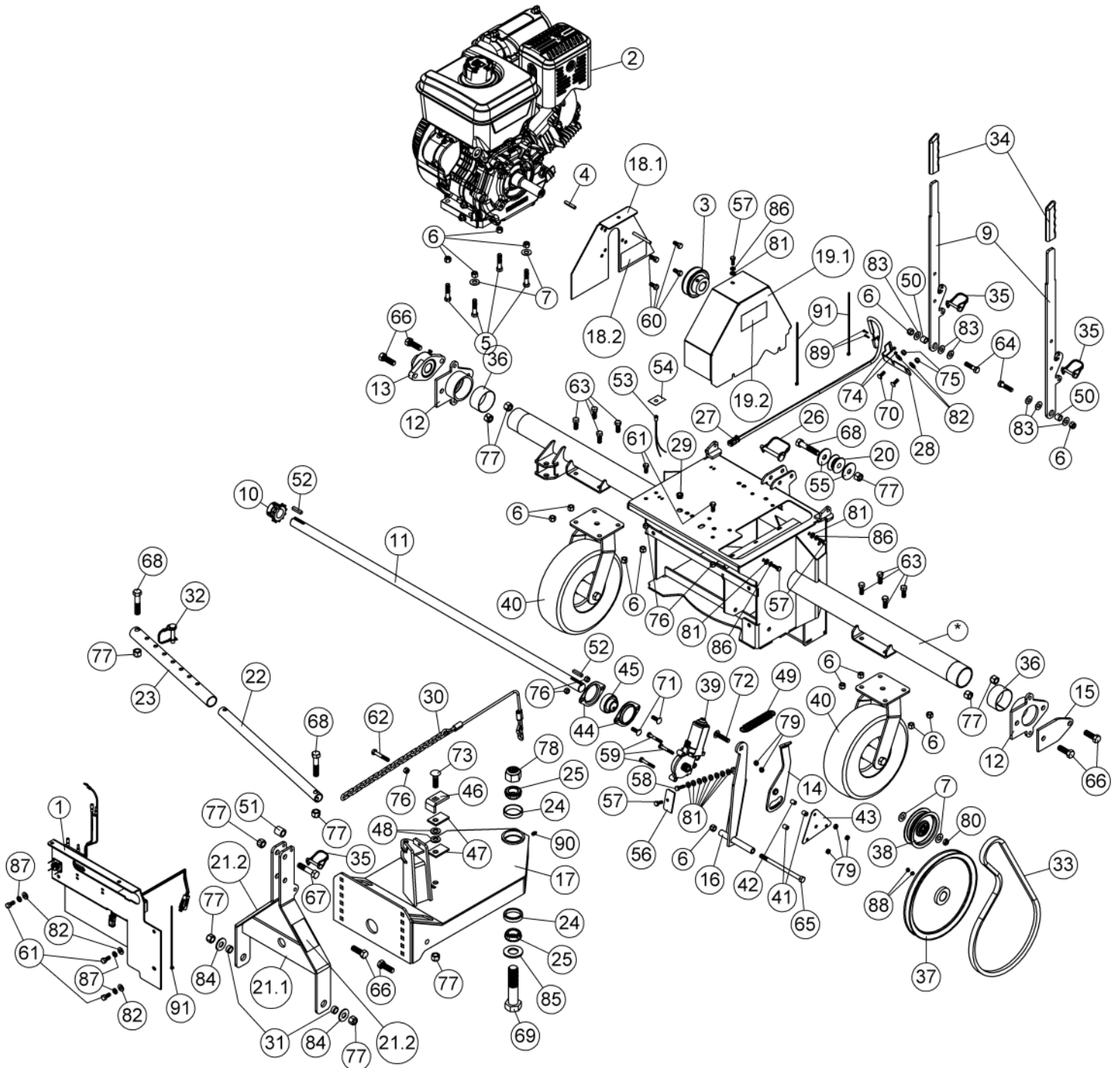
REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
19	Lock pin	Tige de verrouillage	2	106962
20	Hex. bolt 1/4" n.c. x 3/4" GR5	Boulon hex. 1/4" n.c. x 3/4" GR5	4	O/L (300NC.5P_1-4x3-4)
21	Hex. bolt 1/4" n.c. x 1 3/4" GR5	Boulon hex. 1/4" n.c. x 1 3/4" GR5	1	O/L (300NC.5P_1-4x1-3-4)
22	Hex. bolt 5/16" n.c. x 3/4" GR5	Boulon hex. 5/16" n.c. x 3/4" GR5	4	O/L (300NC.5P_5-16x3-4)
23	Hex. bolt 3/8" n.c. x 1" GR5	Boulon hex. 3/8" n.c. x 1" GR5	4	O/L (300NC.5P_3-8x1)
24	Hex. bolt 3/8" n.c. x 1 1/4" GR5	Boulon hex. 3/8" n.c. x 1 1/4" GR5	8	O/L (300NC.5P_3-8x1-1-4)
25	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)
26	Carriage bolt 1/4" n.c. x 1/2 " GR5	Boulon à carrosserie 1/4" n.c. x 1/2" GR5	6	O/L (320NC.5P_1-4x1-2)
27	Carriage bolt 3/8" n.c. x 1 " GR5	Boulon à carrosserie 3/8" n.c. x 1 " GR5	1	O/L (320NC.5P_3-8x1)
28	Carriage bolt 3/8" n.c. x 2 " GR5	Boulon à carrosserie 3/8" n.c. x 2 " GR5	1	O/L (320NC.5P_3-8x2)
29	Hex. nut 1/4" n.c.	Écrou hex. 1/4" n.c.	1	O/L (330NC.P_1-4)
30	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)
31	Nylon Insert lock Nut #6x32 n.c.	Écrou à garniture de nylon #6x32 n.c.	1	O/L (335NC.P_#6X32)
32	Nylon Insert Lock Nut 3/8" n.c.	Écrou à garniture de nylon 3/8" n.c.	14	O/L (335NC.P_3-8)
33	Nylon insert lock nut 1/4" n.c. (thin)	Écrou à garniture de nylon 1/4" n.c. (mince)	7	O/L (336NC.P_1-4)
34	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)
35	Flat washer 1/4" hole	Rondelle plate 1/4" trou	4	O/L (360.P_1-4T)
36	Flat washer 5/16" hole	Rondelle plate 5/16" trou	16	O/L (360.P_5-16T)
37	Flat washer 3/8" hole	Rondelle plate 3/8" trou	4	O/L (360.P_3-8T)
38	Flat washer 7/16" hole	Rondelle plate 7/16" trou	1	O/L (360.P_7-16T)
39	Flat washer 9/16" hole	Rondelle plate 9/16" trou	1	O/L (360.P_9-16T)
40	Lock washer 1/4"	Rondelle de blocage 1/4"	4	O/L (362.P_1-4)
41	Machine screw Pan head #6 x 32 x 9/16"	Vis mécanique tête pan #6 x 32 x 9/16"	1	O/L (395NC.P_#6x32x9-16)

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NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST
Moteur Vanguard 400 (14cv) assemblé pour balai 66" #501523
Vanguard 400 engine (14hp) assembly for 66" broom #501523



NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST
Moteur Vanguard 400 (14cv) assemblé pour balai 66" #501523
Vanguard 400 engine (14hp) assembly for 66" broom #501523

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Guard connectors holder assembled	Garde support connecteurs assemblé	1	501384
2	Vanguard 400 engine (14 hp)	Moteur Vanguard 400 (14 cv)	1	109756
3	Pulley 3.15" with set screw	Poulie 3.15" avec vis pression	1	104833
4	Key 1/4" x 1/4" x 1 1/2"	Clé 1/4" x 1/4" x 1 1/2"	1	102327
5	Hex. bolt 3/8" n.c. x 1 3/4" GR5	Boulon hex. 3/8" n.c. x 1 3/4" GR5	4	O/L (300NC.5P_3-8x1-3-4)
6	Nylon Insert Lock Nut 3/8" n.c.	Écrou à garniture de nylon 3/8" n.c.	15	O/L (335NC.P_3-8)
7	Flat washer 7/16" hole	Rondelle plate 7/16" trou	4	O/L (360.P_7-16T)
8	Engine frame 66"	Châssis du moteur 66"	1	108700
9	Adjustment lever	Levier d'ajustement	2	108724
10	Sprocket with Set Screws	Pignon avec Vis à Pression	1	102093
11	Drive shaft 42 7/8"	Arbre de commande 42 7/8"	1	108720
12	Shoulder support	Support d'épaulement	2	108706
13	Roulement à palier	Bearing	1	108685
14	Lever	Levier	1	108707
15	Guide plate	Plaque guide	1	108722
16	Idler arm	Bras de tension	1	108708
17	Push frame	Châssis de poussée	1	108702
18	Belt guide #108710 w/ safety decal	Guide-courroie #108710 a/ déc. de séc.	1	108753
18.1	Belt Guide	Guide-courroie	1	108710
18.2	Decal Danger Belts	Décalque Danger Courroies	1	108552
19	Belt guard #108723 w/ safety decal	Garde-courroie #108723 a/ déc. de séc.	1	108751
19.1	Belt guard	Garde-courroie	1	108723
19.2	Decal Danger Belts	Décalque Danger Courroies	1	108552
20	Pulley	Poulie	1	108687
21	Lift lever #108703 w/ safety decals	Levier de relevage #108703 a/ déc. de séc.	1	108754
21.1	Lift lever	Levier de relevage	1	108703
21.2	Decal Warning / Crush Harsard	Déc. Avertissement / Risque d'écrasement	2	108750
22	Inside angling tube	Tube d'angulation intérieur	1	108725
23	Outside angling tube	Tube d'angulation extérieur	1	108726
24	Cup for bearing	Cuvette	2	108680
25	Cone bearing	Roulement conique	2	108679
26	Lock pin	Tige de verrouillage	1	103563
27	Wire assembly	Fil assemblé	1	108405
28	Sensor support	Support de capteur	1	108730
29	Split plastic grommet	Oeillet en plastique fendu	1	108728
30	Lifting cable	Câble de relevage	1	108692
31	Sleeve	Douille	2	108735
32	Lock pin	Tige de verrouillage	1	108742
33	V-Belt , B-43	Courroie en V , B-43	1	108686
34	Handgrip	Poignée	2	108736
35	Lock pin	Tige de verrouillage	3	106962
36	Nylon bushing	Coussinet de nylon	2	105323
37	V pulley	Poulie en V	1	104774
38	Flat pulley	Poulie plate	1	102765
39	Electric motor	Moteur électrique	1	106147
40	Caster wheel assembly	Roue Pivotante Assemblée	2	108367
41	Spacer	Espaceur	2	103361
42	Oil lite bushing	Coussinet imprégné d'huile	1	103362
43	Plate	Plaque	1	103363
44	Flangette	Flangette	2	102213

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NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST

Moteur Vanguard 400 (14cv) assemblé pour balai 66" #501523

Vanguard 400 engine (14hp) assembly for 66" broom #501523

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
45	Bearing with set screw	Roulement à billes avec vis à pression	1	102755
46	Bracket	Fixation	1	105378
47	Spacer	Espaceur	2	105379
48	Washer	Rondelle	2	104122
49	Spring	Ressort	1	102592
50	Sleeve	Douille	2	102326
51	Sleeve	Douille	1	102480
52	Key 1/4" x 1/4" x 1 1/4"	Clé 1/4" x 1/4" x 1 1/4"	2	105399
53	Warning light	Avertisseur lumineux	1	107457
54	Warning light decal	Décalque avertisseur lumineux	1	108783
55	Washer	Rondelle	2	108794
56	Retaining shim	Cale de retenue	1	108796
57	Hex. bolt 1/4" n.c. x 3/4" GR5	Boulon hex. 1/4" n.c. x 3/4" GR5	4	O/L (300NC.5P_1-4x3-4)
58	Hex. bolt 1/4" n.c. x 1" GR5 FULLY THREADED	Boulon hex. 1/4" n.c. x 1" GR5 FILETÉ COMPLET	1	O/L (300NC.5P_1-4x1)
59	Hex. bolt 1/4" n.c. x 1 3/4" GR5	Boulon hex. 1/4" n.c. x 1 3/4" GR5	3	O/L (300NC.5P_1-4x1-3-4)
60	Hex. bolt 5/16" n.f. x 3/4" GR5	Boulon hex. 5/16" n.f. x 3/4" GR5	4	O/L (300NF.5P_5-16x3-4)
61	Hex. bolt 5/16" n.c. x 3/4" GR5	Boulon hex. 5/16" n.c. x 3/4" GR5	5	O/L (300NC.5P_5-16x3-4)
62	Hex. bolt 5/16" n.c. x 2" GR5	Boulon hex. 5/16" n.c. x 2" GR5	1	O/L (300NC.5P_5-16x2)
63	Hex. bolt 3/8" n.c. x 1" GR5	Boulon hex. 3/8" n.c. x 1" GR5	8	O/L (300NC.5P_3-8x1)
64	Hex. bolt 3/8" n.c. x 1 1/2" GR5	Boulon hex. 3/8" n.c. x 1 1/2" GR5	2	O/L (300NC.5P_3-8x1-1-2)
65	Hex. bolt 3/8" n.c. x 6" GR5	Boulon hex. 3/8" n.c. x 6" GR5	1	O/L (300NC.5P_3-8x6)
66	Hex. bolt 1/2" n.c. x 1 1/2" GR5	Boulon hex. 1/2" n.c. x 1 1/2" GR5	6	O/L (300NC.5P_1-2x1-1-2)
67	Hex. bolt 1/2" n.c. x 2 1/4" GR5	Boulon hex. 1/2" n.c. x 2 1/4" GR5	1	O/L (300NC.5P_1-2x2-1-4)
68	Hex. bolt 1/2" n.c. x 2 1/2" GR5	Boulon hex. 1/2" n.c. x 2 1/2" GR5	3	O/L (300NC.5P_1-2x2-1-2)
69	Hex. bolt 1" n.c. x 4 1/2" GR5	Boulon hex. 1" n.c. x 4 1/2" GR5	1	O/L (300NC.5P_1x4-1-2)
70	Carriage bolt 1/4" n.c. x 3/4" GR5	Boulon à carrosserie 1/4" n.c. x 3/4" GR5	2	O/L (320NC.5P_1-4x3-4)
71	Carriage bolt 5/16" n.c. x 1" GR5	Boulon à carrosserie 5/16" n.c. x 1" GR5	2	O/L (320NC.5P_5-16x1)
72	Carriage bolt 3/8" n.c. x 1 3/4" GR5	Boulon à carrosserie 3/8" n.c. x 1 3/4" GR5	1	O/L (320NC.5P_3-8x1-3-4)
73	Carriage bolt 1/2" n.c. x 1 3/4" GR5	Boulon à carrosserie 1/2" n.c. x 1 3/4" GR5	1	O/L (320NC.5P_1-2x1-3-4)
74	Nylon insert lock nut #4X40	Écrou à garniture de nylon #4X40	2	O/L (335NC.P_#4x40)
75	Nylon Insert lock Nut 1/4" n.c.	Écrou à garniture de nylon 1/4" n.c.	2	O/L (335NC.P_1-4)
76	Nylon Insert lock Nut 5/16" n.c. GR5	Écrou à garniture de nylon 5/16" n.c. GR5	5	O/L (335NC.P_5-16)
77	Nylon Insert lock Nut 1/2" n.c.	Écrou à garniture de nylon 1/2" n.c.	11	O/L (335NC.P_1-2)
78	Nylon insert lock nut 1" n.c.	Écrou à garniture de nylon 1" n.c.	1	O/L (335NC.P_1)
79	Nylon insert lock nut 1/4" n.c. (thin)	Écrou à garniture de nylon 1/4" n.c. (mince)	5	O/L (336NC.P_1-4)
80	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)
81	Flat washer 1/4" hole	Rondelle plate 1/4" trou	11	O/L (360.P_1-4T)
82	Flat washer 5/16" hole	Rondelle plate 5/16" trou	5	O/L (360.P_5-16T)
83	Flat washer 3/8" hole	Rondelle plate 3/8" trou	6	O/L (360.P_3-8T)
84	Flat washer 9/16" hole	Rondelle plate 9/16" trou	2	O/L (360.P_9-16T)
85	Flat washer 1 1/16" hole	Rondelle plate 1 1/16" trou	1	O/L (360.P_1-1-16T)
86	Lock washer 1/4"	Rondelle de blocage 1/4"	3	O/L (362.P_1-4)
87	Lock washer 5/16"	Rondelle de blocage 5/16"	3	O/L (362.P_5-16)
88	Socket head set screw 5/16" n.c. x 5/16"	Vis pression tête plate 6PC 5/16 n.c. x 5/16"	2	O/L (391NC.N_5-16x5-16)
89	Machine screw pan Head #4X40 x 1-2	Vis mecanique tete pan #4X40 x 1-2	2	O/L (395NC.P_#4x40x1-2)
90	Grease fitting 1/4" n.f.	Graisneur 1/4" n.f.	1	O/L (370.Z_1-4-NF)
91	Tie wrap 8" (black), 50lbs, Weather & UV-Resistant nylon 6.6	Attache de nylon 8" (noir) ,50lbs, Weather & UV-Resistant nylon 6.6	3	O/L (426-8)

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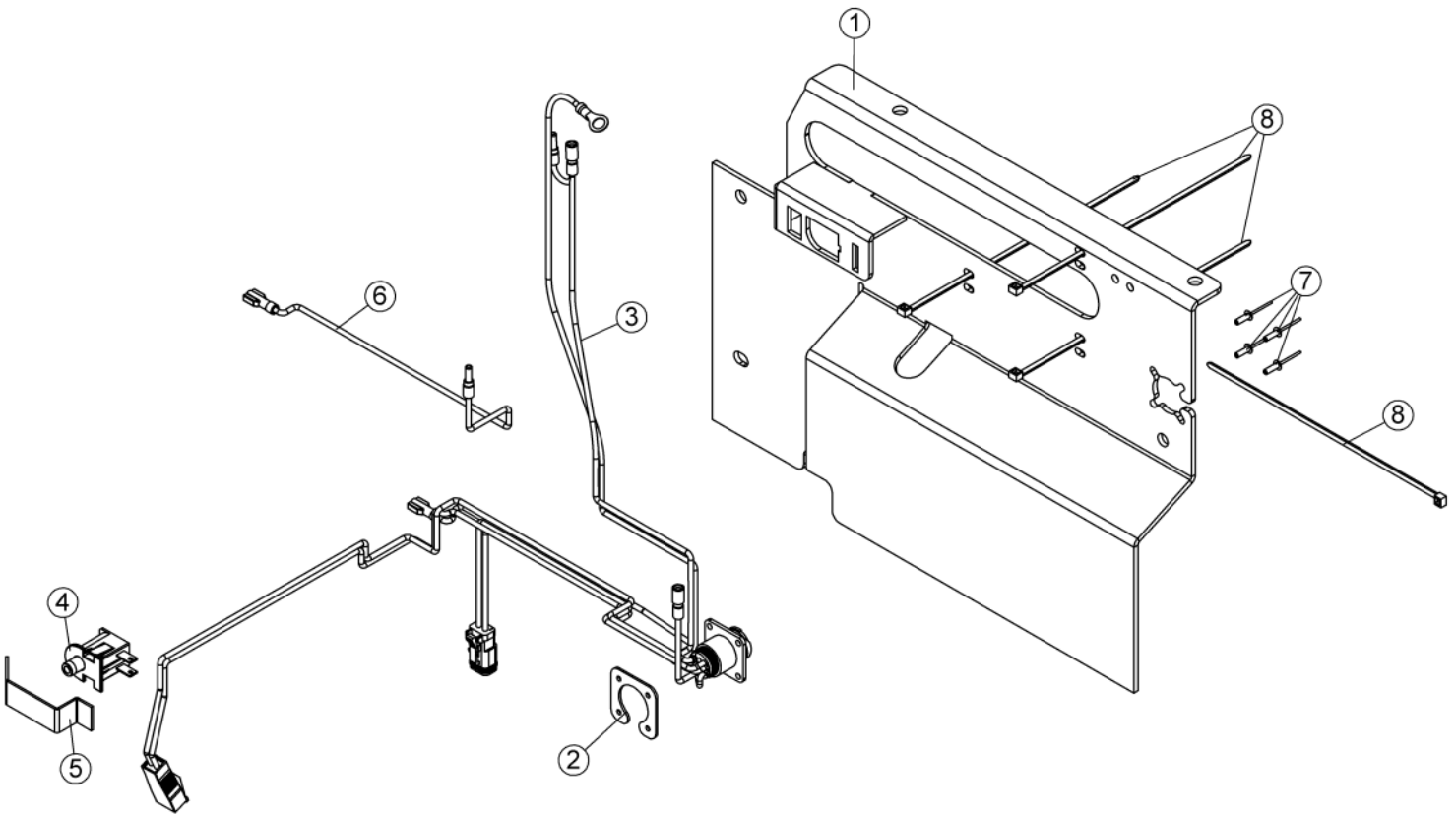
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NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST

Garde support connecteurs assemblé #501384

Guard connectors holder assembled #501384

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Guard connectors holder	Garde support connecteurs	1	108694
2	Rivetable plate for connector	Plaque rivetable pour connecteur	1	108731
3	Accessory's wire assembly	Fil assemblé de l'accessoire	1	108667
4	Limit switch	Commutateur de fin de course	1	108682
5	Push plate	Plaque de poussée	1	105150
6	Wire assembly	Fil assemblé	1	108784
7	Pop-rivet 1/8" x 5/16" no.AD-45BS	Rivet pop 1/8" x 5/16" no.AD-45BS	4	O/L (415_1-8x5-16)
8	Tie wrap 8"	Attache de nylon 8"	4	O/L (426-8)



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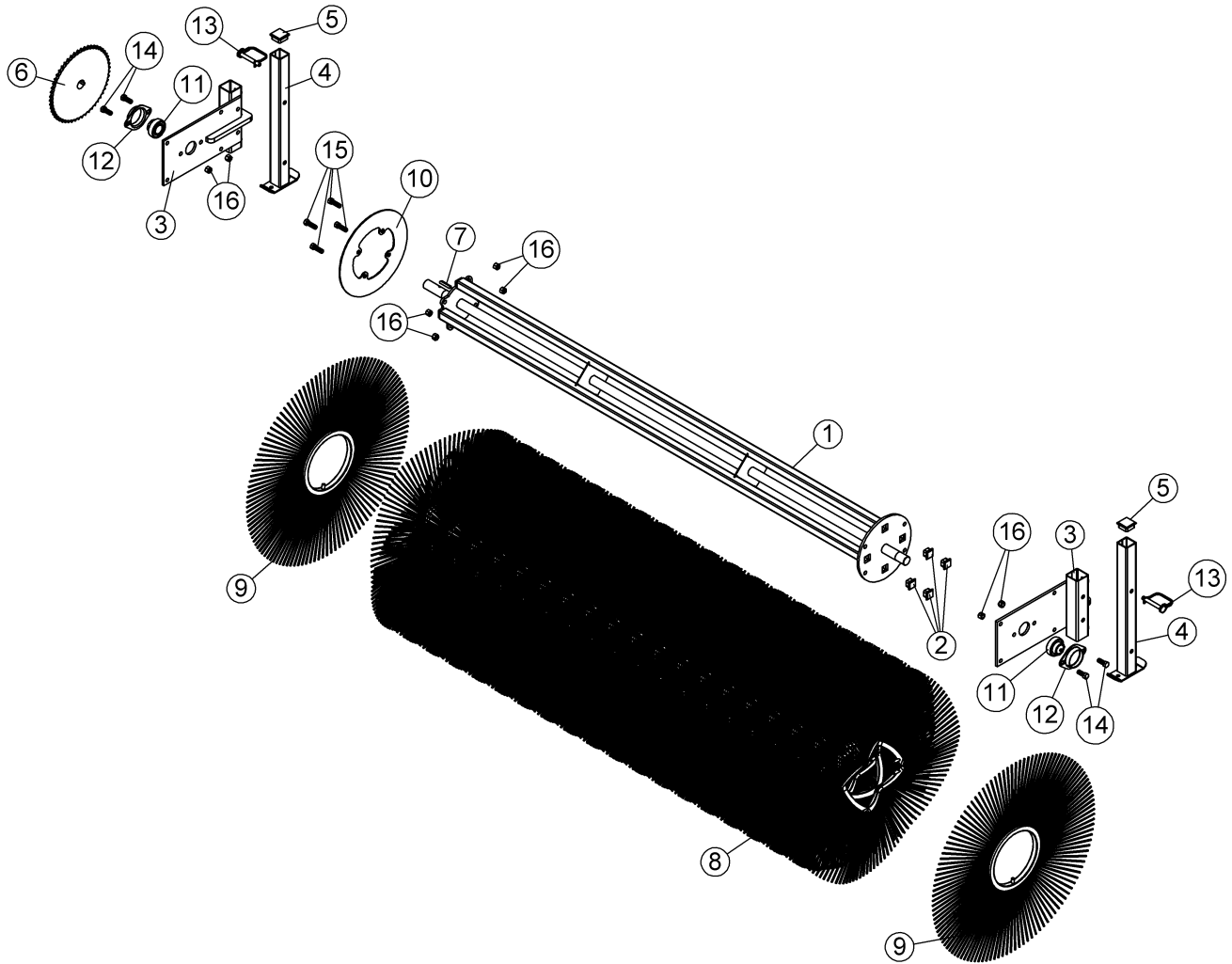
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NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST

Brosse assemblée 24" x 66" #501389

Brush assembly 24" x 66" #501389

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Brush shaft 66"	Arbre de brosse 66"	1	108693
2	Ribbed square plug	Bouchon carré avec nervures	4	108732
3	Stand holder	Support de pied	2	108711
4	Parking stand	Pied de stationnement	2	108712
5	Ribbed square plug	Bouchon carré avec nervures	2	108741
6	Sprocket with Set Screws	Pignon avec Vis à Pression	1	108652
7	Rounded ends key 1/4" x 1/4" x 1.500"	Clé à bouts arrondis 1/4" x 1/4" x 1.500"	1	108183
8	Waved section brush	Section de brosse ondulée	38	105355
9	Flat section brush	Section de brosse plate	2	105364
10	Push plate	Plaque pousoire	1	105316
11	Bearing with set screw	Roulement à billes avec vis à pression	2	102755
12	Flangette	Flangette	2	102680
13	Lock pin	Tige de verrouillage	2	103563
14	Hex. bolt 3/8" n.c. x 1" GR5	Boulon hex. 3/8" n.c. x 1" GR5	4	O/L (300NC.5P_3-8x1)
15	Hex. bolt 3/8" n.c. x 1 1/4" GR5	Boulon hex. 3/8" n.c. x 1 1/4" GR5	4	O/L (300NC.5P_3-8x1-1-4)
16	Nylon Insert Lock Nut 3/8" n.c.	Écrou à garniture de nylon 3/8" n.c.	8	O/L (335NC.P_3-8)



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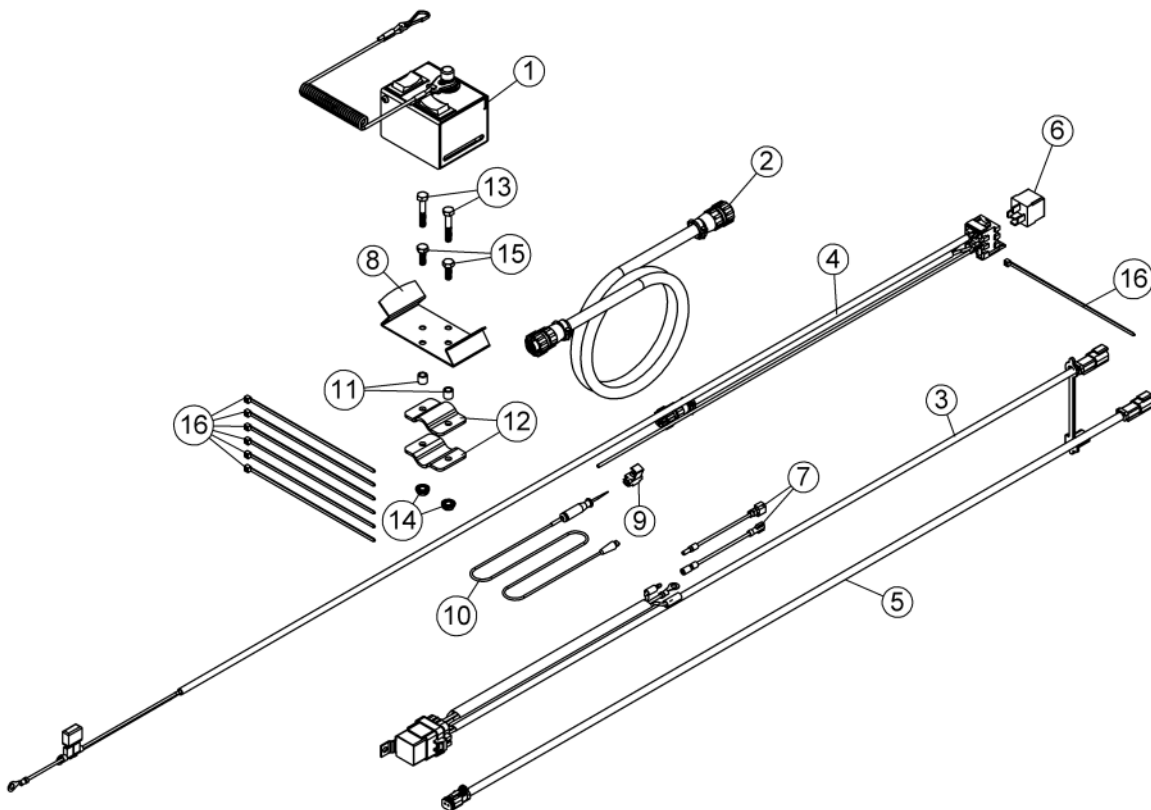
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NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST

Boîte de contrôle emballée #501392

Packaged control box #501392

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Control box assembly	Boîte de contrôle assemblée	1	501385
2	Wire assembly	Fil assemblé	1	108666
3	Wire assembly including plug #108406	Fil assemblé avec bouchon #108406	1	108404
4	Power wire assembly	Fil assemblé de l'alimentation	1	108668
5	Wire assembly	Fil assemblé	1	108772
6	Relay	Relais	1	104405
7	Connector wire Kit	Ensemble de fil connecteur	1	106079
8	Box support	Support de la boîte	1	104661
9	Instant connector	Connecteur instantané	1	105152
10	Hi/low voltage tester	Testeur de haute/basse tension	1	105151
11	Spacer	Espaceur	2	103368
12	Support bracket	Fixation du support	2	103068
13	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)
14	Flange nut 1/4" n.c.	Écrou à bride 1/4" n.c.	2	O/L (334NC.P_1-4)
15	Hex. bolt 1/4" n.c. x 3/4" GR5	Boulon hex. 1/4" n.c. x 3/4" GR5	2	O/L (300NC.5P_1-4x3-4)
16	Tie wrap 8"	Attache de nylon 8"	7	O/L (426-8)



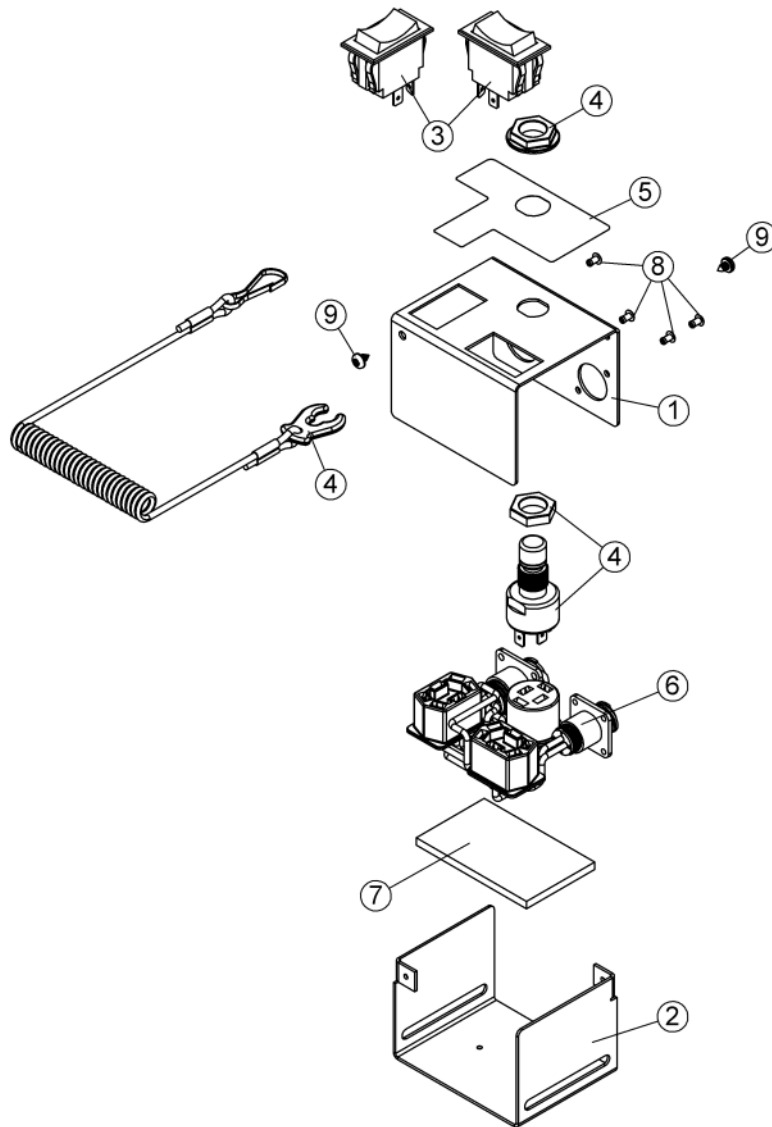
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NOMENCLATURE ET LISTE DES PIÈCES / PARTS BREAKDOWN & PART LIST
Boîte de contrôle assemblée #501385
Control box assembly #501385

REF.	ENGLISH DESCRIPTION	DESCRIPTION FRANÇAISE	QTY.	PART#
1	Box cover	Couvercle de la boîte	1	108689
2	Box	Boîte	1	106052
3	Switch	Commutateur	2	107446
4	Emergency switch with lanyard	Interrupteur d'urgence avec cordon	1	107472
5	Control box decal	Décalque de la boîte de contrôle	1	108714
6	Control box wire assembly	Fil assemblé de la boîte de contrôle	1	108665
7	Control box pad	Coussinet de boîte de contrôle	1	108XXX
8	Pop-riivet 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)
9	Metal screw P.H. #8 x 1/4"	Vis à métal P.H. #8 x 1/4"	2	O/L (400.P_8x1-4)

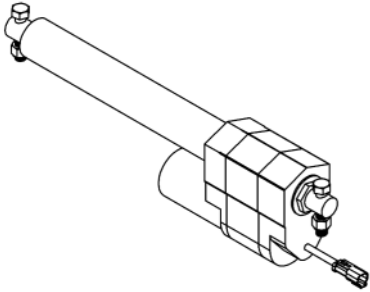


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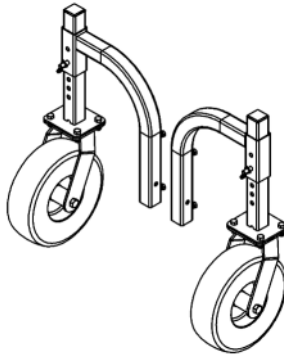
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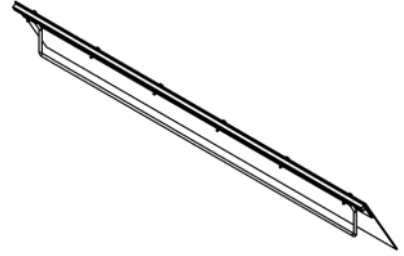
ATTACHMENTS



Actuateur d'angulation électrique
Electric angulation actuator
#700858



Ensemble de roues latérales
Side wheel kit
#700856



Protecteur de poussière 66"
Dust protector 66"
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Ensemble de marqueurs
Marker kit
#700665



***WHEN PERFORMANCE
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