



# **Curb Broom Manual**

08/27/2023

CMC Equipment Inc.

Yankton, SD

# **Information:**

Record your product information here:

Model Number\_\_\_\_\_\_

MFG Date\_\_\_\_\_\_

Dealer Name\_\_\_\_\_\_

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# TABLE OF CONTENTS

OVERVIEW	5
GOALS	5
SAFETY GUIDELINES	7
IMPORTANT SAFETY INFORMATION!	7
WARNING LABELS:	8
SAFETY PRECAUTIONS TIPS:	8
REQUIREMENTS FOR SKID STEER	10
EQUIPMENT SAFETY GUIDELINES	12
PREPARATION	13
OPERATIONAL SAFETY	14
TRANSPORT SAFETY	17
MAINTENANCE SAFETY	18
PROPER ATTACHMENT USAGE	20
IMPORTANT	20
ENTERING THE OPERATOR'S POSITION	20
LEAVING THE OPERATOR'S POSITION	20
CONNECTING ATTACHMENT TO MACHINE	21
CONNECTING HYDRAULIC HOSES	21
DISCONNECTING HYDRAULIC HOSES	23
TEST THE ATTACHMENT	24
BROOM CONTROLS	26
ENGAGING AND OPERATING BROOM	27

SWEEPING TECHNIQUES	28
OPERATING TIPS	30
MAINTENANCE SCHEDULE	31
Prior to each use, ensure to	31
Prior to every season, ensure to:	31
LIMITED WARRANTY	32
WARRANTY EXCLUSIONS	32
WARRANTY STATEMENT	32

## **OVERVIEW**

Welcome to the Operation, Safety, and Maintenance Manual for your Curb Broom Skid Loader Attachment. This manual is designed to provide you with essential information to ensure safe and effective operation, as well as proper maintenance of your equipment. Please read and follow the instructions carefully to maximize both safety and performance.

# **GOALS**

#### **Safety Excellence**:

- Goal: Our primary objective is to ensure the safety of operators and bystanders during the operation of the Curb Broom Skid Loader Attachment.
- Objective: Provide comprehensive safety guidelines, highlighting potential hazards and best practices for safe operation. Empower operators to make informed decisions that prioritize safety at all times.

## **Optimal Performance:**

- Goal: We aim to enable users to achieve the highest level of performance and efficiency when utilizing the Curb Broom Skid Loader Attachment.
- Objective: Provide detailed operation instructions and techniques that help users effectively utilize the attachment for various surfaces and conditions. Educate operators on how to maximize productivity while maintaining safe operation.

#### Longevity and Reliability:

Goal: We are committed to extending the lifespan of the Curb Broom Skid Loader
 Attachment through proper maintenance practices.

- Objective: Offer clear and concise maintenance procedures and schedules, emphasizing regular lubrication, cleaning, and inspection.
  - Empower users to perform routine maintenance to prevent premature wear and ensure the attachment's long-term reliability.

# **SAFETY GUIDELINES**

The user is responsible for inspecting the machine daily, and for having parts repaired or replaced when continued use of the machine would cause damage, excessive wear to other parts or make the machine unsafe for continued operation. If an operating procedure, tool device, maintenance or work method not specifically recommended is used, you must satisfy yourself that it is safe for you and others. You must also ensure that the attachment will not be damaged or made unsafe by the procedures you choose. CMC Equipment Inc cannot anticipate every possible circumstance that might involve potential hazard. The safety messages found in this manual and on the machine are therefore not all inclusive.

#### **IMPORTANT SAFETY INFORMATION!**

Working with unfamiliar equipment can lead to careless injuries. Read this manual, and the manual for your machine skid loader, before assembly or operating, to acquaint yourself with the machines. It is the implement owner's responsibility, if this machine is used by any person other than yourself, is loaned or rented, to make certain that the operator, prior to operating:

- 1. Reads and understands the operator's manuals.
- 2. Is instructed in safe and proper use.

The use of this equipment is subject to certain hazards which cannot be protected against by mechanical means or product design. All operators of this equipment must read and understand this entire manual, paying particular attention to safety and operating instructions, prior to using. If there is something in this manual you do not understand, ask your supervisor, or your dealer, to explain it to you.

#### WARNING LABELS:



Caution: May result in minor injury or serious injury



**Warning:** May result in serious injury or death



Danger: Will result in death or serious injury

The operator of this attachment must understand and practice safe operation. Besides reviewing this manual, it's crucial to also go through the skid steer's operation manual and adhere to the recommendations provided by the manufacturer.

## **SAFETY PRECAUTIONS TIPS:**



Protect Your Eyes:

Use eye protection whenever you're operating the attachment. The skid steer must have thermoplastic polycarbonate door panels and side panels.



Secure the Attachment:

Stop the skid steer's engine and set the brake before exiting. Prevent the attachment from rolling forward or backward.



Maintain Clearance:

Keep a safe distance between the attachment and objects like utilities, tree stumps, rocks, or buildings. Contacting these objects can lead to control loss or damage to the Curb Broom or others.



Mind Sharp Edges:

Parts of the machinery may have sharp edges. Wear work gloves when handling moving parts, especially around the bristles.



Bystander Distance:

Never operate the broom when bystanders are within 100 feet (30 meters) of the work area.



Stay Sober:

Refrain from using drugs or alcohol when using or servicing this equipment.



Wear Proper Protection:

Always use the appropriate personal protective equipment when operating or servicing the attachment. Never work with bare feet, sandals, or light footwear.



Daylight Operations:

Only sweep during daylight hours or in well-lit conditions.



Clear the Area:

Before moving the broom up or down, ensure that there are no bystanders or objects in the vicinity.



No Passengers:

Do not allow anyone to ride on the attachment. Keep bystanders clear during operation.



Mind Your Speed:

Operate the attachment at a safe working speed. During transport, maintain a safe speed to avoid losing control.



Operate from Seat Only:

Always operate the attachment while seated in the prime mover's operator seat.



Safe Storage:

Store the attachment in an area away from where children frequent.



Check Decals:

Replace any worn, torn, or missing safety decals before operating.

By adhering to these precautions, you can ensure the safe and proper operation of the attachment.

# REQUIREMENTS FOR SKID STEER

Your Curb Broom should be operated solely on a skid steer equipped with a matching attachment coupler.

For the protection of the operator against flying debris, it's crucial to equip the skid steer with a windshield made of thermoplastic polycarbonate or a comparable substance. Additionally, ensure there's similar shielding on the sides of the operator's cab.

Ensure your skid steer is in proper operational condition. Adhere to the operating guidelines provided in the accompanying skid steer manual. Neglecting this could lead to potential minor or significant injuries.

## **EQUIPMENT SAFETY GUIDELINES**

- Safety of the operator is one of the main concerns in designing and developing a new piece
  of equipment. Designers and manufacturers build in as many safety features as possible.
  However, every year many accidents occur which could have been avoided by a few seconds
  of thought and a more careful approach to handling equipment. You, the operator, can avoid
  many accidents by observing the following precautions in this section. To avoid personal
  injury, study the following precautions and insist those working with you, or for you, follow
  them.
  - Keep all shields in place. If shield removal becomes necessary for repairs, replace the shield prior to use.
- 2. Replace any CAUTION, WARNING, DANGER or instruction safety sign that is not readable or is missing.
- 3. Location of such safety signs is indicated in this booklet.
- 4. Never use alcoholic beverages or drugs which can hinder alertness or coordination while operating this equipment. Consult your doctor about operating this machine while taking prescription medications.
- 5. Review the safety instructions with all users annually.
- 6. This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible adult familiar with machinery and trained in this equipment's operations. Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and of how it works.
- 7. To prevent injury or death, use a prime mover equipped with a Roll-Over Protective System (ROPS). Do not paint over, remove or deface any safety signs or warning signs on your equipment. Observe all safety signs and practice the instructions on them.
- 8. Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question DON'T TRY IT.

- 9. Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment. Any modification voids warranty.
- 10. In addition to the design and configuration of this implement, including Safety Signs and Safety Equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the machine.

#### **PREPARATION**

- 1. Never operate the power unit and broom until you have read and completely understand this manual, and each of the Safety Guidelines. Only fully trained operators or trainee operators under the close supervision of a fully trained person should use this machine.
- 2. Only operate on a smooth or flat surface.
- 3. Operate only in daylight or good artificial light.
- 4. Ensure the broom is properly mounted, adjusted and in good operating condition.
- 5. Check prime mover tire pressure before sweeping. Check tire ratings to be sure they match the prime mover load. Weigh the broom end of the prime mover, if necessary, to insure proper tire rating.
- 6. Ensure that all safety shielding and safety signs are properly installed and in good condition.
- 7. Personal protection equipment including hard hat, safety glasses, sturdy rough-soled safety shoes, and gloves are recommended during assembly, installation, operation, adjustment, maintaining, repairing, removal, or moving the implement. Do not allow long hair, loose fitting clothing or jewelry to be around moving parts.
- 8. Always wear relatively tight and belted clothing to avoid entanglement in moving parts.
- 9. PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS! Power units with or without implements attached can often be noisy

- enough to cause permanent, partial hearing loss. We recommend that you wear hearing protection on a full-time basis if the noise in the Operator's position exceeds 80db. Noise over 85db on a long-term basis can cause severe hearing loss. Noise over 90db adjacent to the Operator over a long-term basis may cause permanent, total hearing loss. NOTE: Hearing loss from loud noise (from engines, chain saws, radios, and other such sources close to the ear) is cumulative over a lifetime without hope of natural recovery.
- 10. Operate the broom only with a power unit equipped with an approved Roll-Over Protective System (ROPS). Always wear your seat belt on prime mover equipped with a ROPS. Serious injury or even death could result from falling off the prime mover particularly during a turnover when the operator could be pinned under the ROPS or the prime mover. Keep foldable ROPS systems in "locked up" position at all times.
- 11. Broom's operating power is supplied from the prime mover hydraulic system. Refer to your prime mover manual for hydraulic engagement and disengagement instructions. Know how to stop prime mover and broom quickly in case of an emergency. When engaging hydraulic system, the engine RPM should always be low.

#### **OPERATIONAL SAFETY**

- 1. The use of this equipment is subject to certain hazards which cannot be protected against by mechanical means or product design. All operators of this equipment must read and understand this entire manual, paying particular attention to safety and operating instructions, prior to using. If there is something in this manual you do not understand, ask your supervisor, or your dealer, to explain it to you.
- 2. Know your controls and how to stop the power unit and engine quickly in an emergency. READ THIS MANUAL AND THE ONE PROVIDED WITH YOUR POWER UNIT.
- 3. Most accidents occur because of neglect or carelessness. Keep all helpers and bystanders fifty feet (100') from an operating power unit and attached equipment. Only properly trained people should operate this machine.

- 4. Always stop the power unit, set brake, shut off the engine, remove the ignition key, and lower attachment to the ground before dismounting. Never leave equipment unattended with the engine running.
- 5. Please remember it is important that you read and heed the safety signs on the attachment and power unit, and the safety rules set forth. Clean or replace all safety signs if they cannot be clearly read and understood.
- 6. They are there for your safety as well as the safety of others. The safe use of this machine is strictly up to you, the operator.
- 7. Be sure the power unit is in good condition. Read all the safety precautions and make sure all operators are familiar with the safety rules of operation. Working with unfamiliar equipment can lead to careless injuries. It is the equipment owner's responsibility, if this machine is used by any person other than yourself, is loaned or rented, to make certain that the operator, prior to operating:
  - a. Reads and understands the operator's manuals.
  - b. Is instructed in safe and proper use.
- Train all new personnel and review instructions frequently with existing workers. A
  person who has not read and understood all operating and safety instructions is not
  qualified to operate the machine. An untrained operator exposes himself and bystanders
  to possible serious injury or death.
- 2. Do not allow children to operate this machine
- 3. Never sweep toward people, buildings, vehicles or other objects that can be damaged by flying debris.
- 4. Only operate the sweeper while you are in the operating position. The seat belt must be fastened while you operate the prime mover. Only operate the controls while engine is running. Protective glasses must be worn while you operate the prime mover and while you operate the broom.
- 5. While you operate the broom slowly in an open area, check for proper operation of all controls and all protective devices. Note any needed repairs during operation of the sweeper. Report any needed repairs.

- 6. Always stop the power unit, set brake, shut off the engine, remove the ignition key, lower implement to the ground and allow rotating brush to come to a complete stop before dismounting. Never leave equipment unattended with the power unit running.
- 7. Never place hands or feet under broom with power unit engine running or before you are sure all motion has stopped. Stay clear of all moving parts. Keep hands, feet, hair, and clothing away from moving parts.
- 8. Do not reach or place yourself under equipment until it is blocked securely.
- 9. Take all possible precautions when leaving unit unattended: Disengage hydraulic power, set parking brake, stop engine and remove key from ignition. Park in level area.
- 10. Do not allow riders on the broom or power unit at any time. There is no safe place for any riders.
- 11. Disengage hydraulic power and place transmission into neutral before attempting to start engine.
- 12. Do not operate unless all personnel, livestock, and pets are fifty feet away to prevent injury by thrown objects.
- 13. Never direct discharge toward anyone.
- 14. Install and secure all guards and shields before starting or operating.
- 15. Always use two people to handle heavy, unwieldy components during assembly, installation, removal, or moving the attachment.
- 16. Many varied objects, such as wire, cable, rope, or chains, can become entangled in the rotating brush core. Stop the machine and broom immediately.
- 17. These items could then swing outside the housing at great velocities. Such a situation is extremely hazardous.
- 18. Inspect the area for such objects before sweeping. Removing any like object from the site. Never allow the rotating brush to contact such items.
- 19. Remove from the sweeping area all property that could be damaged by flying debris.
- 20. Use extreme care and maintain minimum ground speed when transporting on hillside, over rough ground and when operating close to ditches or fences. Be careful when turning sharp corners. Never mobilize with the broom extended.

- 21. Reduce speed on slopes and sharp turns to minimize tipping or loss of control. Be careful when changing directions on slopes. Do not start or stop suddenly on slopes. Avoid operation on steep slopes.
  - Minimize flying debris use the slowest brush speed that will do the job.
- 22. When sweeping on rough terrain, reduce speed to avoid "bouncing" the sweeper. Loss of steering can result in damage. Should sweep on flat graded surface.
- 23. Leave the brush hood (shield) and all other shields and safety equipment in place when operating the sweeper and prime mover.
- 24. When sweeping, adhere to all government rules, local laws and other professional guidelines for your sweeping application.
- 25. Never raise the sweeper more than a few feet off the ground. The sweeper can tip back or the prime mover can tip over causing death or serious injury.
- 26. The guards, flaps, driveline shields, and gearbox shields should be used and maintained in good working condition. They should be inspected carefully, at least daily, for missing or broken shields, or guards. Missing broken, or worn items must be replaced at once to reduce the possibility of injury from thrown objects or entanglement.
- 27. When maneuvering close to buildings or passing through narrow areas, be sure to allow sufficient clearance for the power unit and broom attachment. Drive slowly.
- 28. Operate brooms from the operator's seat only. Remain at controls until the operating cycle is complete. Stopping frequently to check your surroundings
- 29. Minimize flying debris use the slowest brush speed that will do the job.
- 30. When sweeping on rough terrain, reduce speed to avoid "bouncing" the sweeper. Loss of steering can result in injury or damage.
- 31. Do not mobilize with the broom extended.
- 32. Do not operate at a reckless pace.
- 33. Keep hands and feet away from broom pivot points and from underbrush core.

#### TRANSPORT SAFETY

- 1. Comply with state and local laws governing highway safety and movement of machinery on public roads.
- 2. Always be sure the implement is in the proper raised position for transport.
- 3. Make sure the broom is drawn in and not in the offset position during transportation, failure to do this can cause severe damage to the broom. This goes for hauling and/or transporting across a jobsite.
- 4. Plan your route to avoid heavy traffic.
- 5. Do not drink and drive!
- 6. Watch for traffic when operating near or crossing roadways.
- 7. Never allow riders on either power unit or broom. Falling off can kill.
- 8. The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use.
- 9. Local laws should be checked for all highway lighting and marking requirements.
- 10. Reduce speed when transporting mounted implements to avoid bouncing and momentary loss of steering control.

#### **MAINTENANCE SAFETY**

- 1. Before adjusting or servicing the broom lower the broom to the ground, stop the prime mover engine, set the brakes and remove the key from the ignition.
- 2. Repair or adjust the broom in a safe area, away from road traffic and other hazards.
- 3. Before working on this machine, drive to a level area, disengage the hydraulic power, lower implement (or if working underneath, raise and block securely), shut off the engine, set the brakes, and remove the ignition keys.
- 4. Be certain all moving parts on attachments have come to a complete stop before attempting to perform maintenance.
- 5. Never work under equipment unless it is blocked securely. Never depend on hydraulic system to keep implement in raised position.

- 6. Always use personal protection devices such as eye, hand and hearing protectors, when performing any service or maintenance.
- 7. Keep all persons away from operator control area while performing adjustments, service, or maintenance.
- 8. When working on or around the broom, lower it to the ground or secure it with transport chains.
- 9. Periodically tighten all bolts, nuts and screws and check that all cotter pins are properly installed to ensure unit is in a safe condition.
- 10. When completing a maintenance or service function, make sure all safety shields and devices are installed before placing unit in service.
- 11. Remove hydraulic pressure prior to doing any maintenance. Place the broom on the ground or securely blocked up, and turn off the engine. Push and pull the remote cylinder lever in and out several times to relieve hydraulic pressure.
- 12. After servicing, be sure all tools, parts and service equipment are removed.
- 13. Keep polypropylene brush material away from intense heat or flame.
- 14. Check to ensure all safety signs are installed and in good condition. (See safety sign section for location drawing.)
- 15. Never replace hex bolts with less than grade five bolts unless otherwise specified, i.e. shear bolts. Refer to bolt torque chart for head identification marking.
- 16. Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. The manufacturer will not claim responsibility for use of unapproved parts and/or accessories and other damages as a result of their use.
- 17. If equipment has been altered in any way from original design, personal injury could result. The manufacturer does not accept any liability for injury or warranty.
- 18. A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment.

# PROPER ATTACHMENT USAGE

## **IMPORTANT**

See the machine's Operator's Manual for detailed information on operating the loader.

#### ENTERING THE OPERATOR'S POSITION

Use the attachment safety treads, handles and steps (on the machine) to enter the operator's position while maintaining three points of contact.

When in the operator's position, lower the safety seat bar, start the engine and release the parking brake.

#### LEAVING THE OPERATOR'S POSITION

WARNING AVOID SERIOUS INJURY OR DEATH

Before leaving the operator's position:

- Always park on a flat level surface.
- Lower lift arms and place attachment flat on the ground.
- Place all controls in NEUTRAL.

- Engage the park brake.
- Stop the engine and remove the key.
- Wait for all moving parts to stop.

#### SEE MACHINE'S OPERATOR'S MANUAL FOR ADDITIONAL INFORMATION.

Park the machine / attachment on a flat level surface.

Place all controls in neutral, engage the park brake, stop the engine and wait for all moving parts to stop. Leave the operator's position.



Avoid entering the space beneath the coupler or any attachment component while it's elevated to prevent accidents that could lead to severe injury or even fatality.

## CONNECTING ATTACHMENT TO MACHINE

Check that the hydraulic hoses are unobstructed in front of the attachment's connecting plate and that the mounting plate is clean. Once clear, position the skid steer near the attachment plate. Tilt the skid steer coupler forward to match the coupling point with the upper portion on the rear of the attachment plate and lift the coupler slightly.

Once the upper edge of the coupler is securely in place on the top section of the coupler plate, move the skid steer's tilt function in reverse until the attachment plate is flush against the skid steer coupler. Engage the coupler levers to secure. Please be aware that if your skid steer utilizes a hydraulically operated coupler, it's essential to activate the coupler lock now. Turn off the skid steer's engine and release the pressure in the auxiliary circuit.

Clean hose couplers off before connection to the machine. Fasten the attachment's hydraulic hoses to the auxiliary supply couplers positioned on the lift arm of your skid steer loader. Make sure to securely connect the hydraulic hoses to the designated couplers, ensuring a reliable and efficient hydraulic connection for optimal attachment performance during operation.

#### CONNECTING HYDRAULIC HOSES

Connecting hydraulic hoses is a critical procedure for ensuring the functionality and safety of hydraulic equipment. This process comprises several vital considerations and steps to guarantee a secure, leak-free connection.

- 1. It is essential to prepare the work area by removing dirt, debris, and loose particles from both the male and female couplers. Even the smallest contamination speck can disrupt the hydraulic system or lead to leaks.
- 2. Before connecting the hydraulic hoses, conduct a visual inspection of both the male and female couplers. Inspect them for corrosion, cracks, damage, or excessive wear. Any of these issues can compromise the connection's integrity and potentially result in hydraulic fluid leaks or system failures.
- 3. If you identify any problems during the visual inspection, address them immediately. Damaged or worn couplers must be replaced promptly to ensure a safe and efficient connection. Neglecting to replace compromised components can lead to costly repairs and downtime.
- 4. Selecting the correct hydraulic hoses for the specific application is crucial. Ensure that the hoses are appropriately rated for the pressure and flow requirements of the hydraulic system. Using hoses with incorrect specifications can result in system inefficiencies or equipment damage.
- 5. When connecting the hydraulic hoses, align the male and female couplers carefully, ensuring they fit together smoothly without forceful pushing or twisting. Applying a light

- coating of hydraulic fluid or lubricant to the coupler seals before connecting facilitates a tight seal and simplifies hose attachment.
- 6. After connecting the hydraulic hoses, it is imperative to verify a secure and complete connection. Gently pull on each hose to confirm that it does not easily disconnect. Any slack or play in the connection can indicate an incomplete or loose coupling.
- 7. Once all hydraulic hoses are connected and verified, conducting a system test is advisable. Briefly operate the hydraulic equipment to check for any leakage or irregularities in hydraulic pressure. Should any issues be detected, shut down the system immediately and re-inspect the connections.
- 8. To ensure ongoing reliability, implement regular maintenance practices for hydraulic hose connections. Periodically inspect couplers for signs of wear, damage, or corrosion and replace them when necessary. Additionally, include hose connection checks during equipment inspections to identify potential issues early and prevent costly downtime.
- 9. Always exercise caution when working with hydraulic systems. Hydraulic fluid is often pressurized and can be hazardous if not handled correctly. Prioritize the depressurization of the equipment before connecting or disconnecting hydraulic hoses and adhere to all safety guidelines and procedures.

#### DISCONNECTING HYDRAULIC HOSES

Disconnecting hydraulic hoses is a critical procedure to perform safely and effectively to maintain hydraulic equipment. This process involves key steps to ensure the pressure is released, and the disconnection is done smoothly.

- 1. Before initiating the disconnection process, relieving auxiliary hydraulic pressure is imperative. High-pressure hydraulic systems can be hazardous if not depressurized properly. To relieve pressure, engage the hydraulic controls to lower the attachment or implement to the ground, placing it in a stable and secure position. This action allows the hydraulic system to equalize pressure and reduce the risk of sudden fluid discharge.
- 2. Once the auxiliary hydraulic pressure is relieved, proceed with disconnecting the attachment hydraulic hoses from the machine. Ensure that a clear workspace is established, and gather the necessary tools and personal protective equipment (PPE).
- 3. To prevent confusion and errors during disconnection, identify the specific hoses requiring attention. These hoses typically feature quick-connect couplings or fittings.
- 4. Inspect the hose connections for any dirt or debris before disconnecting. Cleaning the area around the couplings is essential to prevent contaminants from entering the hydraulic system during disconnection.
- 5. Carefully release the hydraulic hose couplings using the appropriate tools or methods. Some couplings may have quick-release mechanisms, while others require wrenches or pliers. Always follow the manufacturer's recommendations for the specific type of couplings used in the hydraulic system.
- 6. Be prepared to capture any fluid that may leak during the disconnection process, as some residual hydraulic fluid may remain in the hoses and couplings.
- 7. During the disconnection, take the opportunity to inspect both the hoses and the couplings for any signs of wear, damage, or leaks. Address any issues promptly to maintain the hydraulic system's performance and safety.
- 8. Properly label and document the disconnected hoses to ensure correct reconnection later, particularly in complex hydraulic systems with multiple attachments and hoses.
- 9. After disconnecting, secure the hoses and couplings to prevent them from dragging on the ground or getting damaged. Keep them clean and protected to maintain their integrity.
- 10. Always adhere to safety guidelines and procedures when working with hydraulic equipment. Wear appropriate PPE and exercise caution regarding any residual pressure or hydraulic fluid that may still be present.

#### TEST THE ATTACHMENT

Securing the broom head to the handle is a pivotal step in guaranteeing the effectiveness and safety of Curb Broom. Here's a comprehensive guide outlines the necessary steps to ensure a stable attachment, preventing any wobbling or potential damage during use.

- 1. Before proceeding, inspect the threaded bolt or wingnut carefully to ensure it's in good condition without any visible damage or deformities. If any issues are present, replace it with a suitable alternative from a hardware store.
- 2. When attaching the broom head, insert the threaded end of the bolt through the hole in the broom head or place the wingnut onto the protruding threads of the handle.
- 3. For threaded bolts, use an adjustable wrench or pliers to gently tighten the bolt. Ensure that the broom head and handle are firmly connected, but be cautious not to over-tighten, as this could lead to damage. Tighten it just enough to eliminate any wobbling or looseness in the attachment. If a wingnut is used, hand-tighten it firmly, applying adequate pressure to remove any play or movement in the connection.
- 4. Once the broom head is secured, it's time to test the attachment. Gently shake the broom horizontally and vertically to assess its stability. A secure attachment should not wobble or feel loose during this test.
- 5. If the attachment feels unstable or wobbles during the test, recheck the attachment point thoroughly for any visible issues or signs of looseness. If problems are detected, use the appropriate tool to further tighten the connection, ensuring it's secure without over-tightening.

6. Repeating the shaking test after making adjustments confirms that the attachment is now stable. While inspecting the attachment, also examine the broom head and handle for signs of damage or wear in the connecting areas. Consider replacing any significantly damaged parts to maintain the broom's functionality and safety.

#### **BROOM CONTROLS**

Before initiating the skid steer or attachment, carefully assess the vicinity for the presence of bystanders and ensure that the area is clear. Prior to commencing attachment operation, it is imperative to conduct a thorough visual inspection and confirm that the coupler lock pins are securely and completely engaged through the latch slots on the attachment plate. This pivotal step ensures that the attachment is properly connected and enhances the overall safety and effectiveness of your operational procedures.

Additionally before starting the operation of the broom. The operator needs to do a **short maintenance check**. Check for any leaks and loose bolts. Ensure hood and flashings are in place without cracks or breaks. Check to make sure all safety decals are in place and can be read clearly.

The functionality of your Curb Broom is integrated with the auxiliary hydraulic system of the skid steer. It is managed through the skid steers joystick control buttons located within the operator's cab. For precise guidance on the proper activation and deactivation of the auxiliary circuit, refer to your skid steer operator's manual.

The elevation and tilt actions of the broom are controlled using either control handles or pedals situated within the cab. To gain accurate insights into the operation of these functions, consult the operator's manual specific to your skid steer. This resource will provide you with detailed instructions that ensure effective and reliable utilization of the broom's height and tilt functionalities.

#### **ENGAGING AND OPERATING BROOM**

- Once the skid steer has been powered on and allowed to warm up in accordance with the
  instructions outlined in your skid steer's dedicated operator's manual, gently increase the
  RPMs. Slightly elevate and tilt the broom backward to facilitate the safe removal of the
  jacks.
- 2) Utilize the electrical controls of the skid steer to initiate the rotation of the broom. This action empowers the operator to activate the offset cylinder, enabling the adjustment of the broom's in-and-out movement through a designated button. Set the offset position according to your preference.
- 3) Now you can drive over to the curb or surface you are going to clean and bring the RPMs up to your liking.
- 4) Elevate the skid steer's arms to create adequate space for tilting the broom downward at an angle. Ensure that the angle chosen does not cause the attachment to obstruct your view of

- what's in front of you. Find a balance where you can see the lower portion of the bristles and the surface you intend to sweep without hindrance.
- 5) Gently raise the attachment to a slight elevation. This approach initiates the rotation of the bristles without subjecting them to accelerated wear. Some skid steers have an option to select a specific hydraulic flow, this would be the time to do that. Once the bristles are engaged, return the attachment to your selected position and commence the sweeping process. Note excessive force on the bristles will cause the bristle wear to accelerate and or damage.
- 6) Upon reaching the culmination of the curb or completing the surface cleaning task, reduce both the RPMs and hydraulic flow to a gradual pace. Initiate the reverse rotation of the bristles, facilitating the retraction of the cylinder.

Avoid using the broom if there are bystanders within a range of 100 feet (30 meters) from your operational zone. The potential for flying debris exists, which could lead to significant harm or even fatality.

Exercise caution when working on uneven terrain. A machine rollover could lead to minor or severe injuries. Always wear your seat belt while operating this equipment.

Excessive forward tilting of a spinning broom while elevated may cause minor or serious injuries if debris is propelled towards the operator.

Do not use this attachment near utilities positioned on the ground. Prior to commencing the sweeping operation, always examine the area to prevent interaction with any electrical wires or cables that may be present on the surface

Operating or activating the broom when bystanders are present could lead to severe injury or fatality. Prior to engaging the broom's hydraulics, ensure the area is free of any bystanders.

Being exposed to hazardous dust, including crystalline silica, can result in severe or even fatal respiratory diseases. When using attachments that generate significant dust levels, it is advised to utilize appropriate personal protective equipment during operation.

## **SWEEPING TECHNIQUES**

Securing the broom head to the handle effectively is crucial for both safety and efficiency in sweeping with an angle broom.

- 1. To initiate, meticulously inspect the threaded bolt or wingnut for any signs of damage or deformities. Replace it with a suitable alternative from a hardware store if necessary.
- 2. When attaching the broom head, insert the threaded end of the bolt through the hole in the broom head, ensuring a snug fit into the handle. Alternatively, with a wingnut, place it onto the protruding threads of the handle after inserting it into the broom head's hole.
- 3. Subsequently, for threaded bolts, employ an adjustable wrench or pliers to gently tighten the bolt, firmly connecting the broom head and handle. Avoid over-tightening to prevent damage, ensuring the elimination of any wobbling or looseness. In the case of a wingnut, hand-tighten it firmly to remove any play or movement in the connection without overdoing it.
- 4. With the attachment secure, proceed to test its stability by gently shaking the broom both horizontally and vertically. A secure attachment should remain stable and not wobble.

- 5. Should any instability become apparent during the test, re-examine the attachment point thoroughly. Address any visible issues or signs of looseness, and if needed, use the appropriate tool to make further adjustments without over-tightening.
- 6. After adjustments, retest the attachment's stability. While inspecting the attachment, also check the broom head and handle for signs of damage or wear in the connecting areas. If you find significant damage, consider replacing the affected parts to maintain functionality and safety.
- 7. Once the attachment is secure, it's time to employ proper sweeping technique for efficient cleaning. Start by holding the broom handle firmly, positioning the broom head at the desired angle for the sweeping task at hand.
- 8. Employ short, controlled strokes while sweeping debris. Avoid wide, sweeping motions that can scatter debris. Focus on directing debris in front of the broom head using short, quick strokes to gather and concentrate it centrally for easy collection.
- 9. Overlapping strokes slightly helps ensure complete coverage of the area while avoiding pushing debris back into cleaned regions.
- 10. Taking advantage of Curb Broom's design, pay special attention to edges and corners, where dirt and debris often accumulate. Angle the broom head to reach tight spaces and use precise, short strokes for effective cleaning.
- 11. Sweep methodically, without rushing. Ensure a thorough coverage of the entire area, paying attention to any stubborn debris that may require extra effort.
- 12. Create piles or rows of collected debris as you sweep, simplifying the gathering and disposal process. A final pass ensures that no stray particles remain behind.

#### **OPERATING TIPS**

- 1. Do not use excessive force on the bristles. It really doesn't clean any more material off. All it does is accelerate the rate of bristle wear.
- 2. Never exit the cab while the broom is up in the air.

- 3. Go at a pace you feel comfortable sweeping. Make sure you are not moving so quick that you can't pay attention to the broom and your surroundings. To slow can also cause advanced bristle wear
- 4. Clean any debris out of the bristles
- 5. Do not use the broom to knock down piles or push objects out the way, You will cause damage.
- 6. Never mobilize unit while broom is extended
- 7. Operate on a smooth graded surface

# **MAINTENANCE SCHEDULE**

## PRIOR TO EACH USE, ENSURE TO

- Inspect for any loose bolts and secure all other fasteners tightly in their designated positions.
- Verify that there are no cracks in the welds.
- Confirm that the frame and structure remain undamaged and free from any cracks.
- Take note of the visibility and legibility of safety decals.
- Examine for leaks.
- Apply grease to all zerks.

- Check for bristle wear
- Check for debris caught in bristles

# PRIOR TO EVERY SEASON, ENSURE TO:

- Check for worn out hoses
- Check bristles and core
- Make sure all zerks take grease
- Clean up rust areas from scratches and repaint to prevent further damage



A tiny oil stream from a punctured leak has the potential to enter your skin upon contact.

To prevent any mishap that might lead to severe injury or even fatality, refrain from employing your hand or other body parts to identify a hydraulic leak.

# LIMITED WARRANTY

CMC Equipment Inc. products are covered by a warranty against defects in workmanship or materials for a period of (12) months from the date of initial sale. Warranty is immediately invalid if the attachment is rented and or leased. CMC Equipment Inc. isn't liable for injuries due to negligence or operator error.

## WARRANTY EXCLUSIONS

This warranty does not apply to normal wear items, such as bearings, hoses, or ground-engaging parts (e.g. broom bristles and skid plates). It also excludes maintenance, service, or adjustments.

Damages resulting from misuse, negligence, accidents, or improper maintenance are not covered. Additionally, improper application, installation, adjustment, or modification of the product are not covered. The warranty becomes void if any product components have been disassembled (e.g., pumps, gearboxes, motors).

Attachments specially modified by CMC Equipment Inc. to meet specific customer needs are not covered by this warranty. Replacement parts not supplied by CMC Equipment Inc. are also excluded.

#### WARRANTY STATEMENT

Our responsibility under this Limited Warranty is limited to repairing or replacing, free of charge, any part (excluding non-covered items) that, in our judgment, exhibits evidence of a defect in quality of workmanship or materials during the 12-month warranty period. All defective parts must be sent directly to CMC Equipment Inc. with prepaid freight or delivery charges.

This Limited Warranty does not hold CMC Equipment Inc. liable for any injury or damage to individuals, businesses, or property of any kind, nor for expenses or losses incurred, including labor, supplies, substitute machinery rental, or any other reason. The availability of repair or replacement parts may be the subject to supply conditions at the time of the repair or replacement, which may impact our ability to obtain materials and/or replacement parts. CMC Equipment Inc. reserves the right to make design improvements or specification changes at any time without obligating owners of previously purchased units. Only CMC Equipment Inc. is authorized to alter, modify, or expand this warranty or its exclusions, limitations, and reservations.