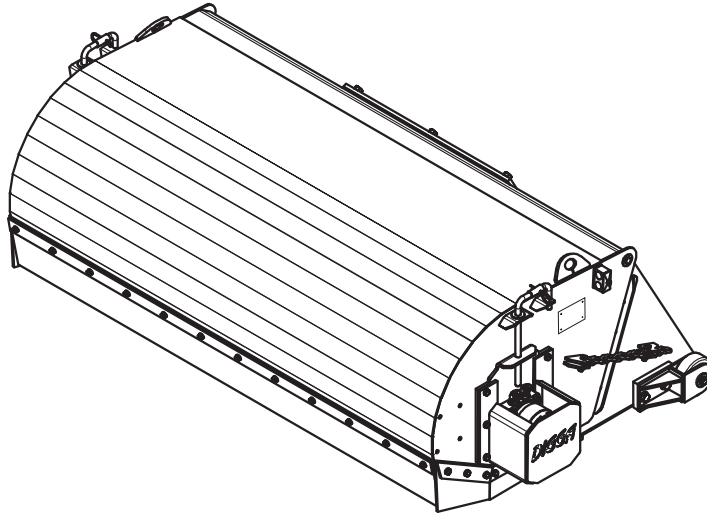


# SWEeper BUCKET BROOM OPERATOR'S MANUAL



MY.DIGGA.COM



DECAL IS APPLIED TO THE  
ATTACHMENT

MY.DIGGA.COM



DECAL TO BE APPLIED TO  
WINDOW OF MACHINE

**ACCESS OPERATOR MANUALS RISK ASSESSMENTS AND MORE**

# Table of Contents

- Table of Contents . . . . . 3
- To the Purchaser . . . . . 5
- Product Identification . . . . . 6
- Notes . . . . . 8
- Preparation for use . . . . . 9
- Safety Precautions - General Information . . . . . 10
- Safety - Working with the Attachment . . . . . 16
- Safety - Decal Labels . . . . . 19
- Before Use . . . . . 21
- Commissioning Procedure . . . . . 23
- Optional Gutter Brush Retrofitting . . . . . 26
- Operating Instructions . . . . . 30
- Maintaining the life of the brush . . . . . 35
- Maintenance . . . . . 36
- Technical Specifications . . . . . 43
- Spare Parts . . . . . 44
- Troubleshooting . . . . . 46
- Warranty Statement . . . . . 49



## To the Purchaser

Thank you and congratulations on the purchase of your new Digga Sweeper Bucket Broom. This product was carefully designed and manufactured to give you years of dependable service. It is mandatory to read these instructions to keep the equipment running in top working condition.

### Before Operation

Inspect the attachment for shipping damage and if any damage does exist, do not operate until the damaged parts have been replaced or repaired. The primary responsibility for safety with this equipment falls to the operator. Make sure the equipment is operated only by trained individuals that have read and understood this manual. If there is any portion of this manual or function you do not understand, contact your local authorized Digga dealer or the manufacturer to obtain further assistance. Keep this manual available for reference. Provide the manual to any new owners and/or operators.

### About This Manual

This manual has been designed to help you do a better and safer job. **Read this manual carefully and become familiar with its contents before connecting and operating this unit.**

### Service

Use only manufacturer replacement parts. Substitute parts may not meet the required standards.



## CAUTION

---

Never allow anyone operate this attachment without reading the “Safety precautions” and “Operating instructions” sections of this manual. Always choose hard and level ground to park the vehicle on and set the brake, so the unit cannot roll.

# Product Identification

<b>MODELS COVERED IN THIS MANUAL</b>					
<b>STANDARD FLOW SWEEPER BUCKET BROOM</b>					
<b>NOMINAL WIDTH</b>	<b>BROOM</b>	<b>BUCKET BROOM</b>	<b>BUCKET BROOM WITH GUTTER BRUSH</b>	<b>BUCKET BROOM WITH WATER TANK</b>	<b>BUCKET BROOM WITH GUTTER BRUSH AND WATER TANK</b>
<b>60 INCH</b>	<b>POLY</b>	BR-002000	BR-002002	BR-002004	BR-002006
	<b>POLY WIRE</b>	BR-002001	BR-002003	BR-002005	BR-002007
<b>72 INCH</b>	<b>POLY</b>	BR-002008	BR-002010	BR-002012	BR-002014
	<b>POLY WIRE</b>	BR-002009	BR-002011	BR-002013	BR-002015
<b>84 INCH</b>	<b>POLY</b>	BR-001910	BR-002017	BR-002019	BR-002021
	<b>POLY WIRE</b>	BR-002016	BR-002018	BR-002020	BR-002022


## **HIGH-FLOW SWEEPER BUCKET BROOM**

**NOT AVAILABLE FOR NORTH AMERICA - CONSULT YOUR DIGGA DEALER**

Your Digga Sweeper Bucket Broom model provides important information about the product. Compare the model engraved on the serial plate to the list above.

# Product Identification

**Your Digga Sweeper Bucket Broom is a user serviceable part.** When servicing or assembling your product, use only genuine Digga replacement parts. Substitute parts may not meet the standards required for safe and dependable operation. Use of non genuine Digga parts will void warranty and Digga accept no liability what so ever for consequential or special damages. All service must be performed by qualified professionals. Contact your local Digga dealer for details. To facilitate warranty or service, record the model and serial number of your unit in the space provided on this page. This information may be obtained from the identification plate located on the product.

		Digga North America 2020 Industrial Parkway SW Dyersville, Iowa 50540, USA	
Model	<input type="text"/>		
Name	<input type="text"/>		
Serial No.	<input type="text"/>		
Flow (max)	<input type="text"/>		
Pressure (max)	<input type="text"/>		
Power (max)	<input type="text"/>	RPM (max)	<input type="text"/>
Approx. Oil Capacity	Yr. Manuf.	Weight	
<input type="text"/>	<input type="text"/>	<input type="text"/>	

MADE IN THE USA

DE-000643

**Model:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

**Purchase Date:** \_\_\_\_\_

## **NOTE**

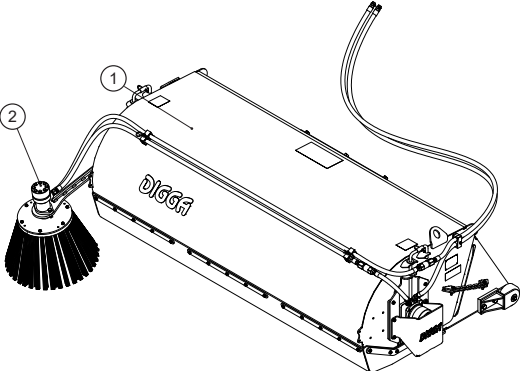
The parts department needs this information to ensure accurate parts can be sent to the authorized service agent.



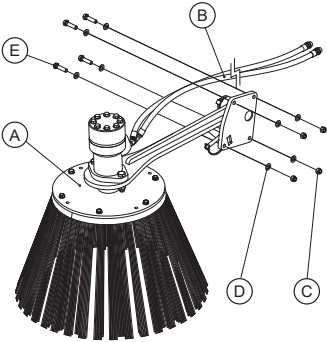


# Preparation for use

To avoid any inconvenience before operation, please check that you have received the following items which you may have ordered. Items may differ depending on type of machine the Sweeper Broom is to be fitted to.



REF	DESCRIPTION	QTY
1	SWEeper BRUSH	1
2	OPTIONAL GUTTER BRUSH	1



REF	OPTIONAL GUTTER BRUSH	QTY
A	GUTTER BRUSH ATTACHMENT	1
B	HOSE KIT (VARIES FOR DIFFERENT BROOM WIDTHS)	1
C	NUT NYLOC 3/8 G8 UNC ZINC PLATED	4
D	WASHER 3/8 ZINC PLATED	8
E	BOLT HEX 3/8 X 1.1/2 G8 UNC ZINC PLATED	4

## **Safety Precautions - General Information**

You must understand all safety statements shown on your attachment and in this manual. Especially note the information called out by the designations shown below. Follow these safety precautions, when operating or maintaining the attachment.

### **DANGER**

---

The **DANGER** designation indicates an imminently hazardous situation that, if not avoided, will result in death.

### **WARNING**

---

The **WARNING** designation indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.

### **CAUTION**

---

The **CAUTION** designation indicates a potentially hazardous situation that, if not avoided, could result in minor or moderate injury or property damage.

### **NOTE**

---

You will also see information called out with the **NOTE** designation. This additional safety or general information is important to the maintenance and operation of your loader.

During day-to-day operation of your attachment, you will encounter a variety of situations beyond those listed in this manual. We encourage you to assess the risk present at any job site and in every work task before beginning work. Apply appropriate risk mitigation strategies to make safety a first priority at all times, and if these are not sufficient, stop the job and immediately seek the help of a qualified safety consultant.

# Safety Precautions - General Information



## CAUTION

---

You must ensure that underground utilities have been officially marked before working in the area. Markings must be valid according to state law or practice.

### Exposure to Respirable Crystalline Silica Dust Along with Other Hazardous Dusts

- It is recommended to use dust suppression, dust collection, and if necessary personal protective equipment during the operation of this or any other machine attachment that may cause high levels of dust.

### Remove Paint Before Welding or Heating

- Hazardous fumes/dust can be generated when paint is heated by welding, soldering, or using a torch.
- Do all work outside or in a well ventilated area and dispose of paint and solvent properly.
- Remove paint before welding or heating. When sanding or grinding paint, avoid breathing the dust. Wear an approved respirator. If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.

### End of Life Disposal

- At the completion of the useful life of the Sweeper Bucket Broom, drain all fluids and dismantle by separating the different materials (rubber, steel, plastic, etc.). Follow all federal, state and local regulations for recycling and disposal of the fluid and components.

### Operating the Bucket Broom

- The primary responsibility for safety with this equipment falls to the operator. Make sure that the equipment is operated only by trained individuals, who have read and understood this manual.
- An operator must not use drugs or alcohol, which can change his or her alertness or coordination. An operator taking prescription or over-the-counter drugs should seek medical advice on whether or not he

## Safety Precautions - General Information

or she can safely operate the equipment.

- Don't hurry the learning process or take the unit for granted.
- It is the skill, care, common sense, and good judgment of the operator that will determine how efficiently and safely the job is performed.
- Visually inspect your equipment, ensure correct assembly and installation is done and never operate the equipment that is not in proper working order.
- Know the capabilities of your equipment and practice its operation to become familiar with the controls, emergency shut down procedures, and the way it handles on your machine.
- Follow all safety decals and keep them clean. Replace them, if they become worn, damaged or illegible.
- Do not paint over, remove or deface any safety signs or warning decals on your equipment.
- Operate only from the operator's station and operate only in daylight or with sufficient artificial light.
- Always carry loads close to the ground and do not exit the machine with the loader arms raised.
- Do not exceed rated operating capacity (ROC) of the host machine, as machine may become unstable resulting in loss of control. Overloading or exceeding the manufacturers specifications will also void all warranty.
- Always lower the loader arms or the machine boom to the ground, shut off the engine and remove the key before getting off the unit.
- Remove the Sweeper Bucket Broom from the parent machine before transporting to and from the job site.
- Never use the attachment on a machine that is not equipped with a cab rollover protective structure (ROPS) and/or falling object protective structure (FOPS), and operator restraints (seat belts or equivalent devices). Although, this is not applicable when using this attachment on a stand-on mini loader.
- Establish and maintain a minimum 15 meters (50 feet) exclusion zone around the working area. No person other than the operator should enter the work zone, while the parent machine's engine is running.
- Do not allow site workers to climb on the attachment at any time, including while stationary, in operation or being moved.

## Safety Precautions - General Information

- Avoid steep hillside operation which could cause the machine to overturn. Consult your machine operator's and safety manual for maximum allowable incline.
- Reduce speed when driving over rough terrain, on a slope or turning to avoid overturning the machine.
- Travel only with the Bucket Broom in a safe transport position to prevent the uncontrolled movement.
- Drive slowly over rough ground and on slopes.
- Tether the Gutter Brush (if equipped) and any accessory connected to the Bucket Broom with a chain if necessary, to prevent uncontrolled swinging of the attachments.
- Do not drive close to ditches and excavations, etc., as cave in could result.
- Flow and pressure gauges, fittings, and hoses must have a continuous operating pressure rating of at least 25% higher than the highest pressure of the system.
- All operations must be stopped in the event of local thunderstorm or lightning activity. During operation, weather conditions shall be monitored, operations shall cease during electrical storms or when electrical storms are imminent. Ground personnel and bystanders.
- Be alert to others in the work area. Be sure others know when and where you will be working.
- Loose fitting clothing, long hair, jewelry and equipment which might become entangled in moving equipment are prohibited while working near the Bucket Broom .
- Operators, helpers, and other personnel working near the attachment must wear steel-toe safety shoes, safety glasses, and hard hats as a minimum. Hearing protection, respirators, and personal protective clothing will be specified in the site-specific Health and Safety Plan.
- The Sweeper Bucket Broom shall be cleaned only when the mechanism is in neutral and stopped; long-handled shovels shall be used to move debris from the Bucket Broom. Materials heavier than 10 kg must be moved mechanically or by using at least two people.
- The Sweeper Bucket Broom shall be used only for their designed intent and shall not be loaded beyond their rated capacity. Overloading or exceeding the manufacturers specifications will void all warranty.

## Safety Precautions - General Information



### CAUTION

---

Wait for the mechanism completely stop before making any adjustments or cleaning.



### DANGER

---

During Bucket Broom operation, maintain a minimum “no-work zone” buffer of 10 feet (3 meters) from any overhead electrical service and 6 feet (2 meters) from any underground service . All bystanders should be kept at a minimum of 50 feet (15 meters) away from the working area of the Bucket Broom.

#### Storing your Sweeper Bucket Broom

- Seal hydraulic couplers from contaminants and secure all hydraulic hoses off the ground to help prevent damage.
- Clean the unit thoroughly by removing all mud, dirt, grease, etc..
- Inspect for visible signs of wear, breakage, or damage. If required, order any damage parts and perform the necessary repairs to avoid delays upon removal from storage.
- Check that hydraulic motor and hoses are full of clean oil and apply grease to all grease nipple points.
- Coat liberally with grease all connecting pins to prevent rust and reduce wear.
- Tighten loose nuts, cap screws, and hydraulic connections.
- Replace safety decals that are damaged or in an unreadable condition.
- Store unit in a dry and protected place, as leaving the unit outside will materially shorten its life.

#### Maintaining the Sweeper Bucket Broom

- All maintenance should be performed with the engine turned off, parking brakes applied, machine arms lowered, and hydraulic pressure relieved.
- Lock out and tag out the equipment before repairs or maintenance is performed.

## Safety Precautions - General Information

- Only properly trained and qualified individuals are permitted to perform repairs and maintenance.
- If lift arms must be left raised for any reason, use a positive lift arm lock to secure the arms in place. Serious damage or personal injury could result from lift arms accidentally lowering.
- Never adjust a relief valve for pressure higher than recommended by the machine's manufacturer.

### Transporting the Sweeper Bucket Broom

- When transporting your attachment, follow all local government regulations that may apply along with any equipment safety precautions provided in this manual.
- It is the responsibility of the operator that safe systems of work are employed while handling this attachment.
- Two lifting points are provided on the top of the attachment. It is responsibility of the operator to ensure the devices and procedures are adequate for lifting the equipment.
- No tie down points are provided and its the responsibility of the operator to ensure that the attachment is firmly fastened without causing any damage to it.
- Ensure that the gutter brush arm is well secured during transport.
- Attachment should be well secured, when being moved or in transit and furthermore prior to moving, storing, loading/unloading, or parking.
- Verify that all tie down accessories (chains, slings, ropes, shackles, etc.) are capable of maintaining attachment stability during transporting and are attached in such a way to prevent unintended engagement or shifting of the unit.
- Use extra care when loading or unloading the attachment on to a trailer or truck and disconnect hydraulic couplers during the transportation. No responsibility for loss or damage to persons or property in any regard can be attributed to Digga.

# Safety - Working with the Attachment

## Complete a Risk Assessment

Your Digga Sweeper Bucket Broom is a versatile machinery attachment, capable of performing its tasks in a safe and effective manner. To ensure the safety of operators and others, it is important to document the work at hand for hazard and risk. Before beginning work, complete a risk assessment. The following steps provide a framework for this activity:

1	<b>DOCUMENT THE ACTIVITY</b> Assemble those involved in the activity. Write down the tasks required for the activity in step-by-step form.
2	<b>IDENTIFY THE HAZARDS</b> Next to each task, identify what part of the task may cause injury to those engaged in the task or others in the vicinity. Rate the consequences and likelihood of the hazard using the risk assessment matrix.
3	<b>DOCUMENT THE CONTROL MEASURES</b> Using the results from the risk assessment matrix, determine which hazards require attention. List all mitigation measures that are required to eliminate or minimize those hazards.
4	<b>IDENTIFY THE RESPONSIBLE PERSON</b> Document the name of the person responsible for implementation of the mitigation measure.
5	<b>MONITOR AND REVIEW</b> Ensure that the activity is supervised and that the documented process is being followed.

## NOTE

Remember, Personal Protection Equipment (PPE) provides a level of protection during work, but PPE is the last level of hazard control and prevention. Always refer to the hierarchy of hazard control, when planning a safety process.



## Safety - Working with the Attachment

**Take Extreme Care When Dealing with Hydraulics - Whilst Assembling, Operating, Maintaining or Performing any work on or near this product.**

- Hydraulic fluid under pressure can penetrate the skin and may develop gangrene or other permanent disabilities. **Hydraulic leaks under pressure may not be visible!**
- If any fluid penetrates the skin, **get immediate medical attention!**
- Wear safety glasses, protective clothing, and use a sound piece of cardboard or wood when searching for hydraulic leaks. **Do not use your hands!**
- Before connecting or disconnecting hydraulic hoses, read your machine or power unit's operator manual for detailed instructions on connecting and disconnecting hydraulic attachments.
- Ensure that all parts meet the specifications for this product when installing or replacing hydraulic hoses or fittings.
- After connecting hydraulic lines:
  - Slowly and carefully raise the loader's arm(s) and cycle the rollback/dump cylinders to check hose clearances and to check for any interference.
  - Operate the hydraulics on this product to ascertain forward and reverse.
  - Ensure that the hoses cannot interfere with or actuate the quick-attach mechanism.
  - Ensure that hoses will not be pinched, or get tangled, in any equipment.
- Do not lock the auxiliary hydraulics in the "ON" position.
- Refer to host machine operator's manual and this manual for procedures and service intervals, then inspect and maintain the entire hydraulic system to ensure that the fluid remains clean, that all devices function properly, and that there are no fluid leaks.

### **NOTE**

For any additional safety information please see "Risk Management Booklet". To obtain a copy of this document please contact Digga Head Office.

# Safety - Working with the Attachment

## When Mounting this Product to Your Machine

- Refer to the operator's manual of your host machine for any special or detailed mounting instructions regarding quick-attach mechanism.
- This product should fit onto the quick-attach frame or hitch (machine mount). If this product does not fit properly, contact your Digga dealer before operating.
- Where enabler 'Dead Man' controls are installed it is illegal to disengage, tamper with, or remove them.



## **WARNING**

---

Never place any part of your body into the mounting plate, frame, hitch or loader holes. A slight movement of the power unit and this product could cause serious injury.

## When Adjusting Servicing or Repairing this Product

- Do not make any modifications to your Digga Sweeper Bucket Broom.
- When making repairs use only authorized Digga service agents and use only genuine Digga parts. For fasteners, hydraulic hoses, or hydraulic fittings, use only properly rated parts.
- Replacement parts must also have safety signs attached.



## **CAUTION**

---

Wait for all moving parts to stop completely before making any adjustments or cleaning.

## **Safety - Decal Labels**

This section provides a glossary of safety labels found on your Digga Sweeper Bucket Broom. These labels are important! Become familiar with both their meaning and location prior to operating the Bucket Broom. Ensure that each label is clean, visible, and legible at all times. To clean the decal, use a soft cloth, water, and soap. Avoid the use of solvents, gasoline, or other harsh chemicals, as these may damage the decal. If a label has been damaged or removed, it must be replaced.



## Before Use

The key feature of your Digga Sweeper Bucket Broom is low maintenance. It contains user serviceable parts. When servicing your product remember to use only genuine Digga replacement parts. Use of non-genuine Digga parts will void warranty and Digga will accept no liability what so ever for consequential damages as a result thereof.



### **DANGER**

---

**Safety first!! Read and understand the safety instructions before beginning any broom maintenance.**

#### **Before First Use**

Inspect the Sweeper Bucket Broom for shipping damage. If damage does exist, do not operate until the damaged parts have been replaced or repaired.

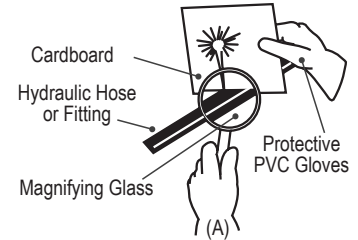
#### **Before Each Use**

- Make sure that all nuts and bolts are in place and properly tightened.
- Make sure that all other fasteners are in place and are performing their specified function.
- Make sure that all hydraulic fittings are tightened and that there are no leaks in any fittings or hoses.
- Make sure that all safety signs are in place, are clean, and are legible (see "Safety - Decal Labels" on page 20).
- Check for wear and tear on pins, linkages, cutting edges and replace any damaged parts and excessively worn parts.
- Use only manufacturer recommended replacement parts. Other parts may be substandard in fit and quality.
- Ensure any damage or excessively worn parts are replaced.
- Always wear safety goggles or glasses when inspecting equipment.

## Before Use

### WARNING

Escaping fluid under pressure as low as 100 PSI can have sufficient force to penetrate the skin up to 4" (100mm) away causing serious personal injury. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands to search for suspected leaks (A). Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak and use heavy duty PVC protective gloves. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.



### WARNING

Always wear the correct PPE, when operating or performing maintenance on this attachment. If a hydraulic fluid injection injury occurs, seek emergency medical attention immediately. Explain to medical staff that the injury is the result of pressurized fluid injection. Remember that even if the point of entry appears as a minor pin hole, this potentially could be a major injury, especially if not treated in time.

# Commissioning Procedure

The Digga Sweeper Broom attaches to the tool bar/quick-attach mechanism of your Machine. Due to this arrangement, thorough knowledge of the machinery controls is necessary for machine operation. Read and understand your machine operator's manual for information regarding machine operation before attempting to use the Sweeper Broom.

When a Sweeper Bucket Broom is purchased from DIGGA or a DIGGA Dealer/Distributor, the frame/attachment is matched for suitability and compatibility to the flow, pressures and load ratings of the original machine it was purchased for. For fitment of the Sweeper Bucket Broom to other machines you must first contact your DIGGA dealer and receive written confirmation to ensure you do not incorrectly fit the attachment to a machine with higher pressure, or lower rated load capacities than what the product was designed for.

Warranty will be void if the Sweeper Bucket Broom is fitted to an alternative machine without first receiving written confirmation from your DIGGA dealer. Exceeding the recommended maximum flow, pressure, or rated load capacity of the Sweeper Broom as stated on the serial tag will void all warranty.

Check the work site and identify the extent of the work to be carried out and note any possible hazards or constraints. Overhead cables, underground utilities, services, etc. Check with relevant government departments on the location of these before commencement of any work. Review the job at hand and determine the Sweeper Bucket Broom is appropriate for the intended conditions. For example: Do not use to collect rocks.

## **Operating Parameters - HP (KW) Power Ratings**

The hydraulic motor of your Sweeper Bucket Broom has a maximum power rating. Maximum pressure and flow cannot be achieved at the same time. Ensure you know and understand the maximum flow, pressure and power ratings of your Bucket Broom and parent machine. Never exceed the maximum ratings listed on the serial tag attached to the side of the hood.

## **Installation instructions**

1. Remove the shipping banding from around the Sweeper Bucket Broom and Frame.
2. Remove any attachments from the front of the Machine.

## Commissioning Procedure

3. Ensure you have read the serial tag on the Sweeper Bucket Broom to obtain the maximum flow and pressure ratings. Ensure your machine flow and pressure settings are aligned with the requirements of the Sweeper Bucket Broom.

### **NOTE**

Never exceed the maximum flow and pressure ratings as warranty will be void.

4. Following all standard safety practices and the instructions for installing an attachment in your machine operator's manual, install the Sweeper Bucket Broom onto your Machine

### **NOTE**

It is important to make sure the locking mechanism on your quick attach is engaged, therefore locking the attachment onto the machine..

5. Lower the unit to the ground and remove the key from the parent machine.
6. Relieve any pressure from the auxiliary hydraulic system and after making sure that there is not any foreign matter on the hydraulic couplers, connect the power and return couplers to the auxiliary hydraulic system of your machine.
7. Route the hoses in such a fashion as to avoid pinching or chafing.
8. Use the adjusting handles connected to the axle, located at each end of the broom, to adjust the brushes to the correct position for use. (See "Brush adjustment" on page 36) Your attachment is now ready for use.

### **Sweeper Bucket Broom with optional Gutter Brush**

The Sweeper Bucket Broom can be equipped with a rotary Gutter Brush installed on the side of the bucket hood in order to clean gutters, curbs and ledges that would be otherwise inaccessible to the bucket broom. The Gutter Brush can be supplied either during the order of the bucket broom or at a later stage, as a retrofit kit. See page 9 for part numbers and consult your Digga Dealer for availability.



# Commissioning Procedure

## Gutter Brush installed at the factory

If the optional Gutter Brush attachment has been installed at the factory with your Sweeper Bucket Broom, there is no need for any further installation providing the hydraulic flow of your machine is adequate for the Gutter Brush operation. See the table below:

	MINIMUM	MAXIMUM
HYDRAULIC FLOW	16 GPM	20 GPM
GUTTER BRUSH SPEED	300 RPM	375 RPM

- Standard Flow Sweeper Bucket Brooms are not equipped with a pressure-compensated flow control valve. Therefore it is the responsibility of the end user to match the hydraulic flow of their hosting machine to the attachment's requirements. Consult your Digga Dealer for assistance.

## **DANGER**

Do not operate or adjust the Gutter Brush with the arm in the vertical position. See "Disabling the Gutter Brush" on page 33.

Your Gutter Brush is now ready for use in sweeping areas such as curbs, alongside walls or ledges or where close access is restricted.

# Optional Gutter Brush Retrofitting

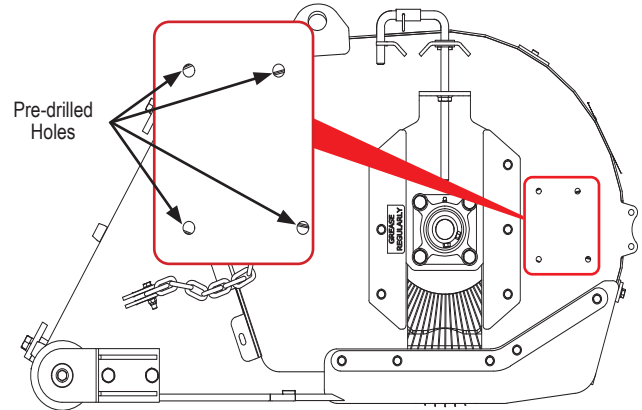
## Gutter Brush Retrofitting Kit for Standard-Flow Sweeper Brooms

If the Gutter Brush is supplied as a retrofit kit, please take the time to read these installation instructions so that the installation will be completed efficiently and safely. The following steps are required for retrofitting the Gutter Brush attachment to your standard Digga Sweeper Broom:

1. Installation of the Gutter Brush attachment is relatively easy as long as these instructions are carefully followed. Make sure you have the hose kit that matches the width of your bucket broom. See table on page 29.
2. Lift the Sweeper Broom and position it over sturdy and stable supports, allowing safe access to the inner part of the broom hood.

### **WARNING**

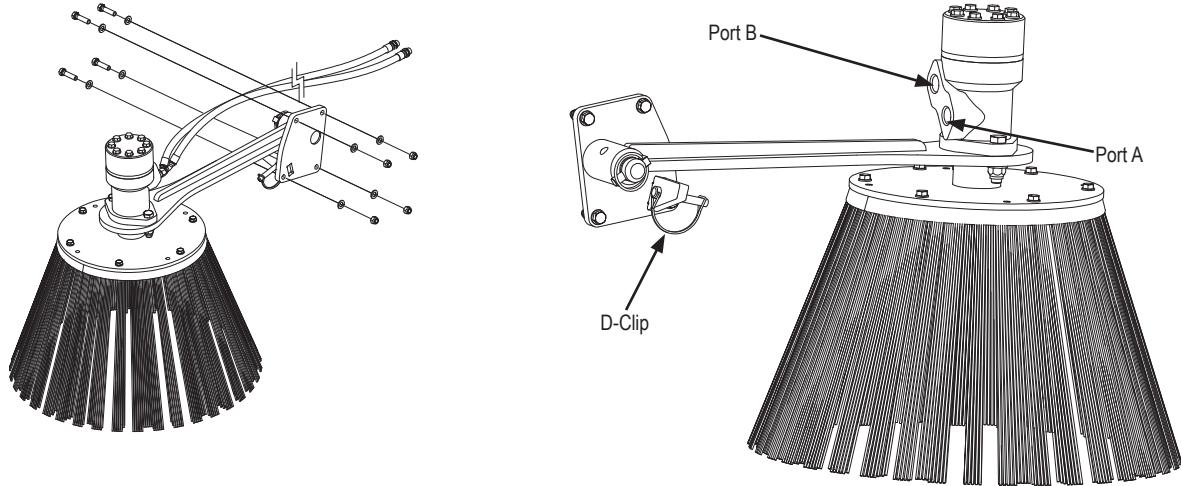
Do not attempt to work under the broom unless the broom is securely supported and the broom is stable and safe to work under. Do not rely on the Skid-Steer hydraulic pressure to support and hold the broom off the ground. The Sweeper Broom must be resting on rigid supports.



3. Match the gutter brush mounting flange to the 4 pre-drilled holes provided at the right hand side of the sweeper broom hood. Fix it in place using 4x 3/8" x 1.1.2" bolts and nylock nuts.
4. Disconnect the return hose running from the main hydraulic motor (Port A-see schematic on page 29) to the skid steer loader. This is one of the two original hoses supplied with the broom. The Gutter Brush is supplied with 4 new hoses which need to be installed. The supply hose (Hose E) connected to the port B on the main hydraulic motor does not need to be changed. Connect the Hose A to port A of the broom hydraulic

## Optional Gutter Brush Retrofitting

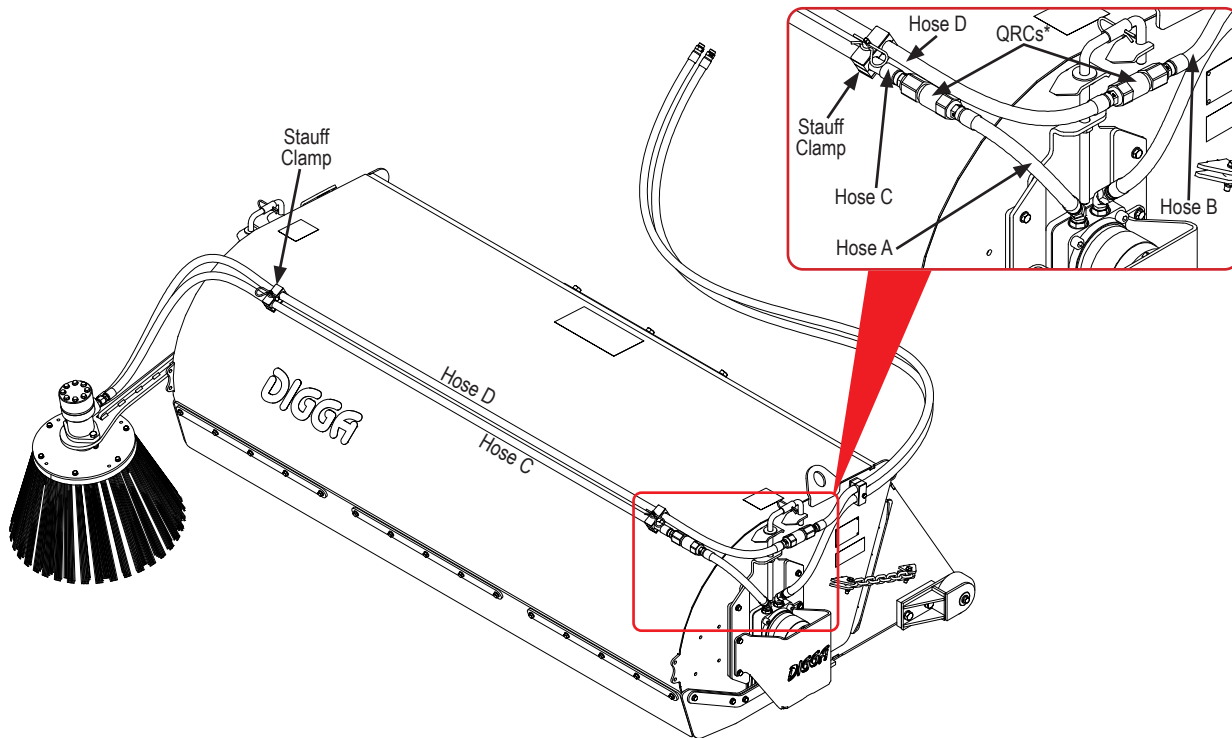
motor. Hose A is connected to Hose C via a quick coupler. Hose C is to be connected to the lower-positioned port (port A) on the hydraulic motor of the gutter brush (see figure on page 27). Connect Hose D to the upper port (port B) on the hydraulic motor of the gutter brush (see figure on page 27). Hose D connects to Hose B via a quick coupler. Then Hose B connects to the quick couplers of the skid steer loader.



5. Install hoses C and D on the 2 staff clamps provided on the top of the bucket broom hood. Use R-clips provided to lock the clamps. Make sure the hoses are accommodated in a fashion to avoid hose chaffing.
6. Connect the hydraulic hoses to the skid steer loader, remove the stands from under the Sweeper Broom and perform a stationary test on the Sweeper Broom to check for any oil leaks. Ensure that all bystanders are standing at a minimum distance of 50 ft away from the attachment and that all necessary safety precautions are taken into account.

# Optional Gutter Brush Retrofitting

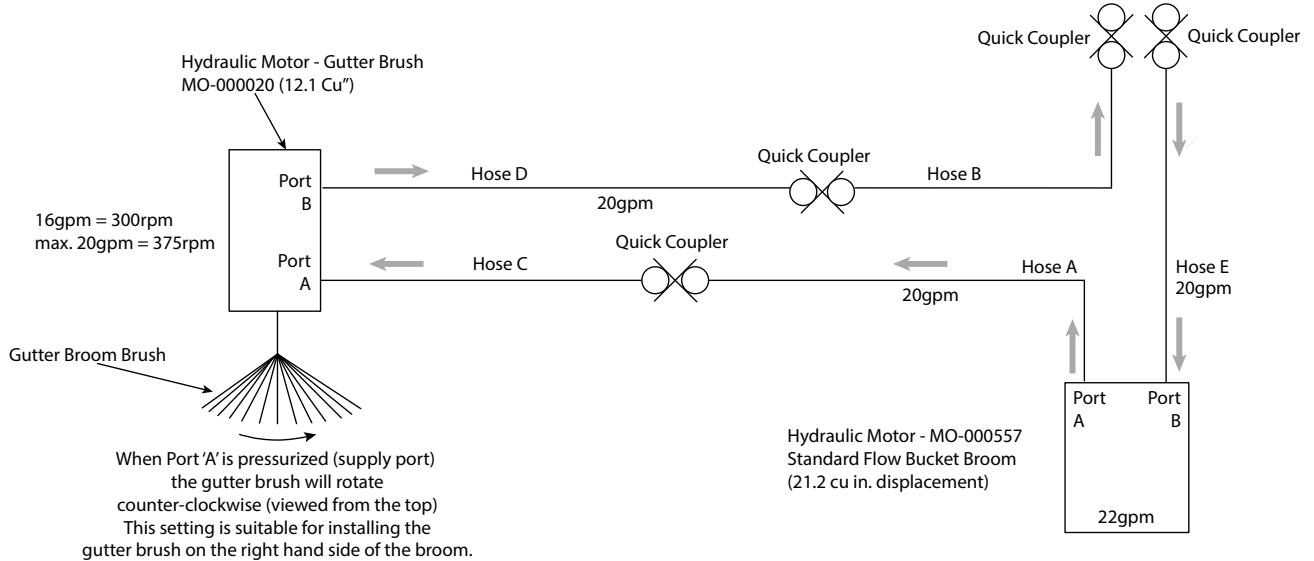
## Gutter Brush kit installed



\*QRCs: Quick Release Couplings

# Optional Gutter Brush Retrofitting

## Schematic of Hydraulic Circuit for Sweeper Brooms with RHS Gutter Brush



BR-001991 HOSE KIT 60" BUCKET BROOM			BR-001990 HOSE KIT 72" BUCKET BROOM			BR-001955 HOSE KIT 84" BUCKET BROOM		
HOSE A	HS-002944	16.5"	HOSE A	HS-002944	16.5"	HOSE A	HS-002944	16.5"
HOSE B	HS-002940	94.5"	HOSE B	HS-002940	94.5"	HOSE B	HS-002940	94.5"
HOSE C	HS-002952	77.5"	HOSE C	HS-003071	89.5"	HOSE C	HS-002946	101.5"
HOSE D	HS-002953	96.5"	HOSE D	HS-003070	108.5"	HOSE D	HS-002945	120.5"
HOSE E	HS-002920	106"	HOSE E	HS-002920	106"	HOSE E	HS-002920	106"

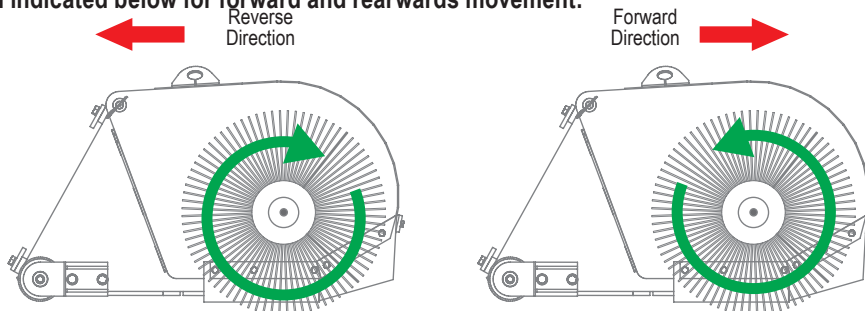
# Operating Instructions

## Sweeper Bucket Broom Operation

1. Maneuver machine to required location for sweeping and lower the loader arms. Ensure the brushes are approximately 1" to 2" below the bucket edge and tilt the broom forward until the bucket cutting edge is just clear of the ground.
2. Start brushes rotating in the required direction via the auxiliary lever and move forward or reverse depending on the type of sweeping required. Brush should always rotate to sweep material in the same direction as travel.

## **NOTE**

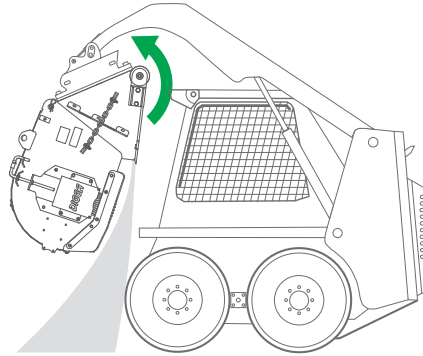
Always sweep at a high enough brush speed and low ground speed to effectively discharge the material being swept. Follow the rotation direction indicated below for forward and rearwards movement.



3. Operate the machine at medium RPM. If excessive dust is being raised, reduce brush speed via lower RPM's and travel slower.

## Emptying procedure

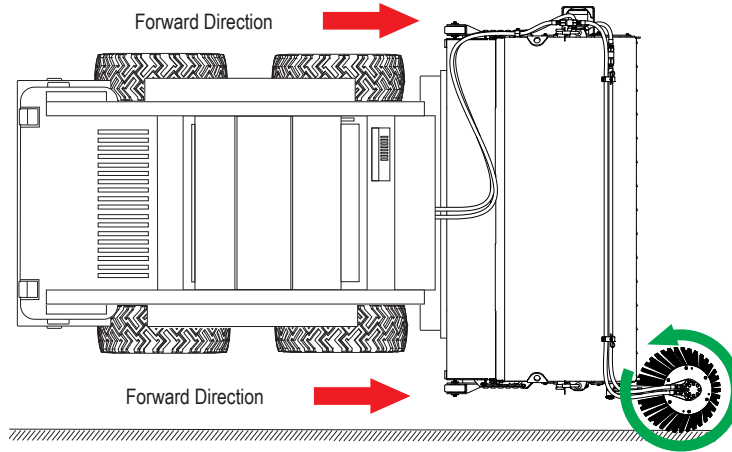
When the bucket requires emptying, stop rotation of the brush, lift loader arms and crowd bucket forward so the Bucket Broom hood swings away from the bucket.



# Operating Instructions

## Operating the Gutter Brush

Use the gutter brush to reach areas such as kerbs, alongside walls, or ledges. When installed on the right-hand side of the Sweeper Bucket Broom, the gutter brush shall rotate counter-clockwise (viewed from the top) to sweep the debris to the front of the bucket broom. The forward movement of the broom will then collect the debris into the bucket.



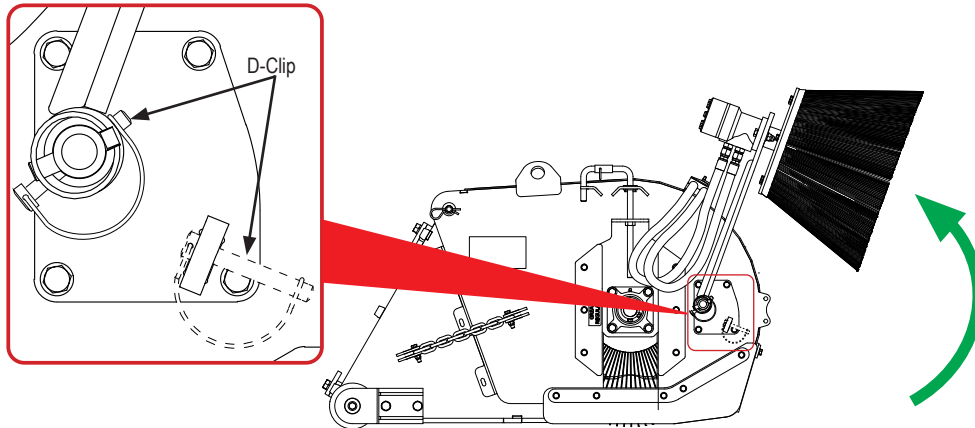


## Disabling the Gutter Brush

When the Gutter Brush is not in use, it is good practice to disable the gutter brush and store the arm in the upright position. To disable the gutter brush, bypass its hydraulic motor by disconnecting the 2 QRCs and connecting Hose A to Hose B. This will ensure that the skid steer hydraulic fluid powers only the broom hydraulic motor, while the gutter brush remains static. See figure on page 28, and hydraulic schematic on page 29.

To prevent debris from entering the gutter brush hydraulic lines, connect Hose C to Hose D.

Lift the gutter brush arm and lock it in place using the D-clip stored in a tab on the gutter brush mounting flange.



**DANGER**

Do not operate or adjust the Gutter Brush with the arm in the vertical position.

# Operating Instructions

## When the attachment is not on the parent machine

It is a requirement that safe systems of work are employed when handling any attachments. Complete compliance with all safety issues is compulsory and all due care and attention must be observed at all times in any method of moving, transporting or storing any such device when not attached to a parent machine. We recommend attachments are well secured when being moved or in transit and furthermore prior to moving, storing, loading/unloading or parking it is suggested that the attachment is strapped/secured to a pallet or enclosed in a suitable container to minimize any movement or loss of the load during such activity. NO responsibility for loss or damage to persons or property in any regard can be attributed to Digga.

## Transporting the attachment

1. Follow all federal, state and local regulations when transporting the unit on public roads.
2. Use extra care when loading or unloading the machine onto a trailer or truck. Disconnect hydraulic couplers during transportation.

## Removal and Storage

1. Set the attachment on the ground and follow the standard shut down procedure in your loader operators manual.
2. With the loader OFF, disengage the attachment lock pins, release hydraulic pressure from the auxiliary hydraulic system and disconnect the hydraulic couplers from the loader.
3. Start the machine's engine and make sure that the lift arm is lowered and in contact with the loader frame.
4. Roll the attachment mechanism forward and slowly back up until the attachment is free from the machine.
5. Remove and store the attachment in a dry and protected place. Leaving the Bucket Broom and Gutter Brush Attachment outside will materially shorten its life.

# Maintaining the life of the brush

## Brush Level

Brush life can decrease by 50% or more if you don't level your brush frequently. Brush level should be checked before operating.

## Brush down-pressure

Improper down-pressure can decrease brush life by 95%. The tips of the bristles provide the most efficient sweep. When too much down-pressure is applied, the brush is working with the sides of the bristles, not the tips. This eliminates the natural flicking action of the tips and reduces sweeping effectiveness.

Check for correct down-pressure daily. Before starting a sweeping job, park your machine and Sweeper Broom on a level area. With the machine stationary, lower the rotating brush down to the ground, and then lift. Check the cleaned area below the brush. A brush with correct down-pressure will clear a 1 to 3 inch path along the length of the brush. See "Brush adjustment" on page 36.

## Speed of vehicle when sweeping

Improper ground speed not only damages the brush but can also damage sweeper components. If the ground speed is too fast, the debris piles up in front of the brush. Material is bulldozed rather than swept. Bulldozing causes excessive pressure on the brushes, core, drive lines, frame and can prematurely wear the rubber flaps on the sides and front of the Sweeper Broom.

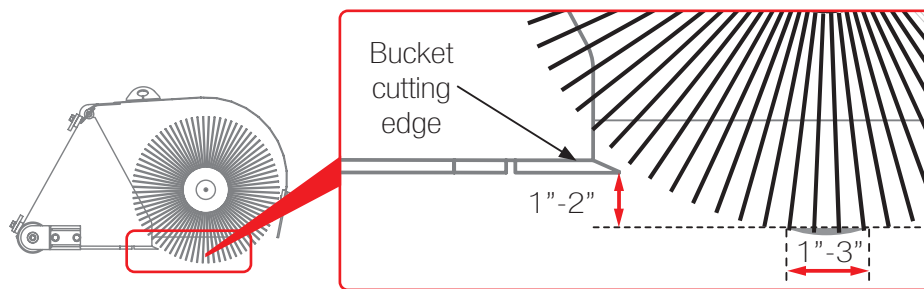
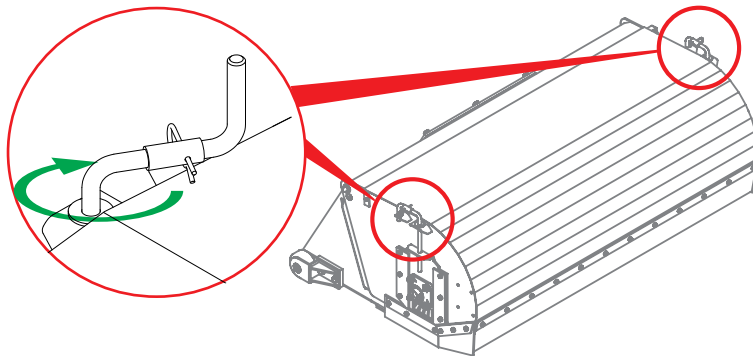
Always sweep at a high enough brush speed and low ground speed to effectively discharge the material being swept.



# Maintenance

## Brush adjustment

Remove the handle pin, twist the handle, and replace the pin. Re-adjust the axle to the correct height using both handle adjusters simultaneously. Return handles to their original position.



Set the height of the brush so the bottom of the brush is approximately 1" to 2" lower than the bucket cutting edge. The brush must be level.

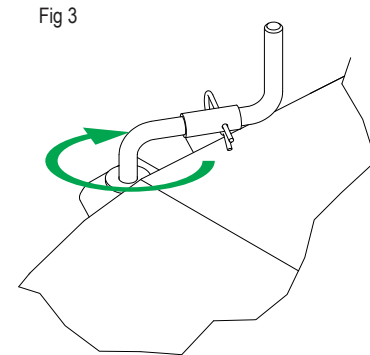
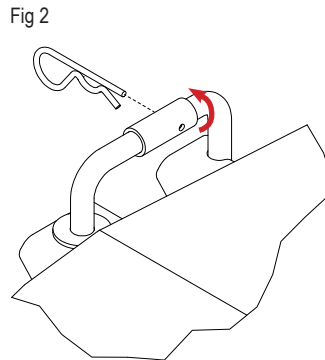
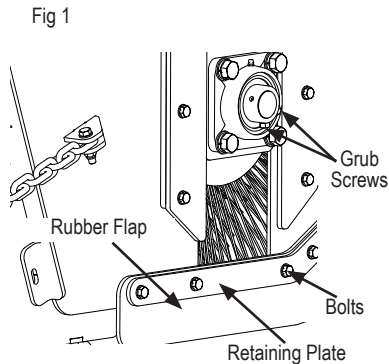
The brush contact area (cleaned area) must be between 1" to 3" (see "Maintaining the life of the brush" on page 35).

## To replace brush

1. Following all standard safety practices and the instructions for removing an attachment in your machine operator's manual, remove and disconnect the Sweeper Bucket Broom from your Machine.
2. Undo the bolts and remove the side retaining plates with rubber flaps (Fig 1), on both sides of the broom.
3. Using suitable lifting equipment lift the broom, via the lifting lugs, approximately 4 inches above the ground.
4. Release the handle extension (Fig 2) and lock it upwards using the clip pin. Rotate the broom handle (Fig 3) to lower the poly brush until it drops down to the ground.

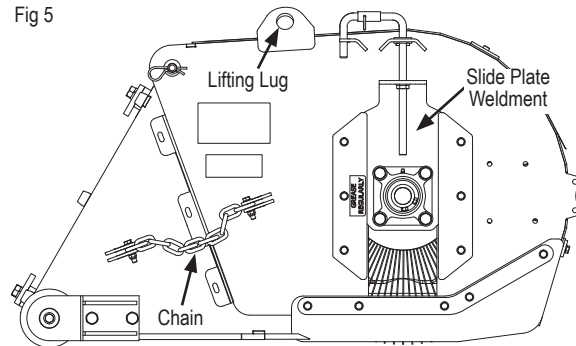
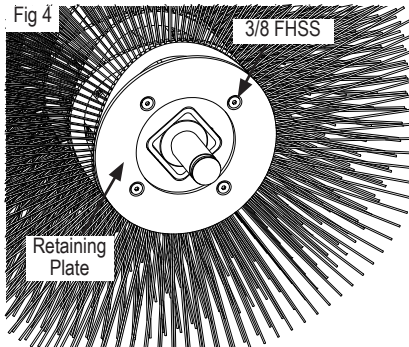
## NOTE

Wind down both sides of the broom simultaneously to ensure that the brush slides out easily.



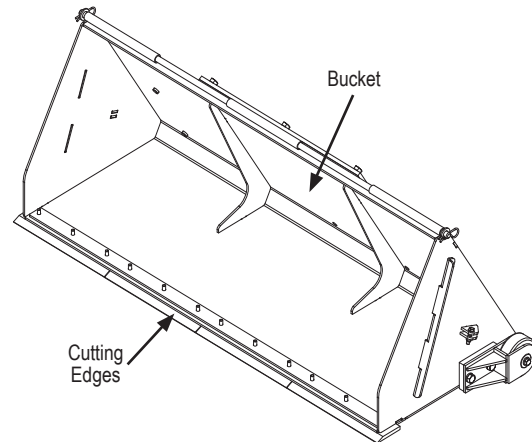
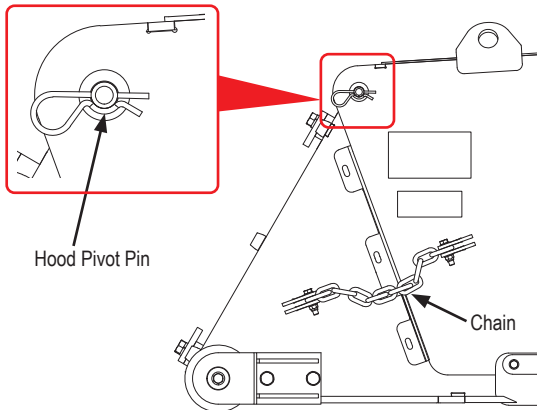
# Maintenance

- Using suitable lifting equipment lift the broom hood weldment, via the lifting lugs, leaving the brush remaining on the ground.
- Lower the weldment to the ground in an area away from the brush to allow you to work on the brush.
- Loosen the two grub screws which secure the bearing collar to the shaft (Fig 1).
- Slide the bearing housing, with attached slide plate weldment (Fig 5), off the shaft.
- Remove the two 3/8 inch flat head socket screws (FHSS) which secure the retaining plate to the shaft(Fig 4).
- Slide the retaining plate and then the worn convoluted brush wafers off the bearing side of the shaft.
- Replace the worn convoluted brush wafers. See "Spare Parts" on page 44 for the quantity of wafers required).
- Reassemble all parts in the reverse order of above.
- Readjust the axle to correct height using the adjusters. Set the height of the brush so the bottom of the brush is approximately 1-2" lower than the bucket cutting edge. See "Brush adjustment" on page 36.



## Replacing cutting edges

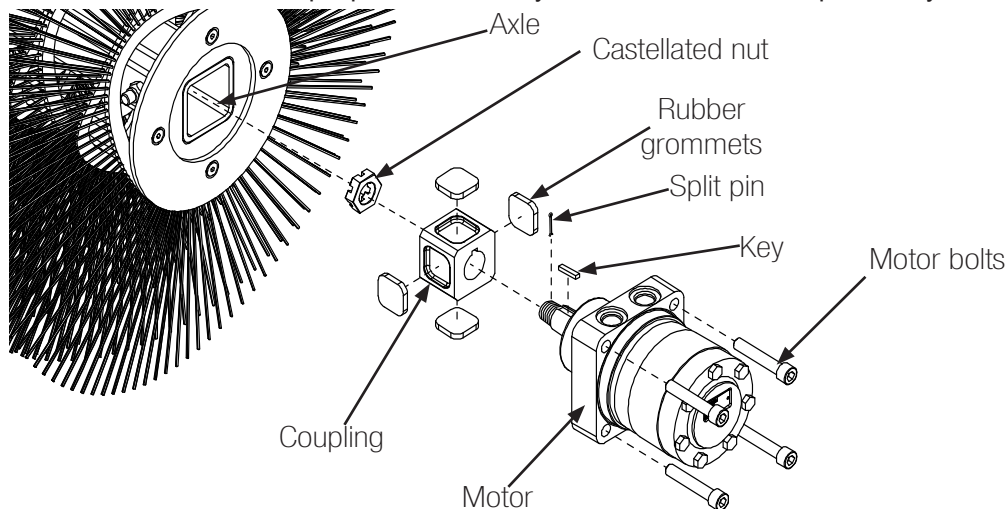
1. Following all standard safety practices and the instructions for removing an attachment in your machine operator's manual, remove and disconnect the Sweeper Bucket Broom from your Machine.
2. Disconnect one end of the chain which runs between the hood and the bucket on either side of the broom.
3. Remove the hood pivot pin.
4. Using suitable lifting equipment lift the broom hood assembly, via the lifting lugs, leaving the bucket remaining on the ground.
5. Lower the hood assembly to the ground in an area away from the bucket to allow you to access the cutting edges.
6. Remove the flat head socket screws and nuts which secure the cutting edges to the bucket weldment.
7. Replace the worn cutting edges.
8. Reassemble all parts in the reverse order of above.



# Maintenance

## Replacing axle or drive couplings

1. Following all standard safety practices and the instructions for removing an attachment in your machine operator's manual, remove and disconnect the Sweeper Bucket Broom from your Machine.
2. Remove your brush as per the instructions on page 37.
3. When the hydraulic motor bolts are removed, the hydraulic motor and coupling can be slid from the axle.
4. Pull the split pin out and remove the castellated nut in the end of the motor shaft. Using a puller, remove the coupling from the motor shaft.
5. Replace the coupling by gently tapping the new one back onto the motor shaft until firm.
6. Replace the drive coupling square rubber grommets on the outside of the coupling.
7. Replace the castellated nut and the split pin. Reassembly broom axle as set out previously.

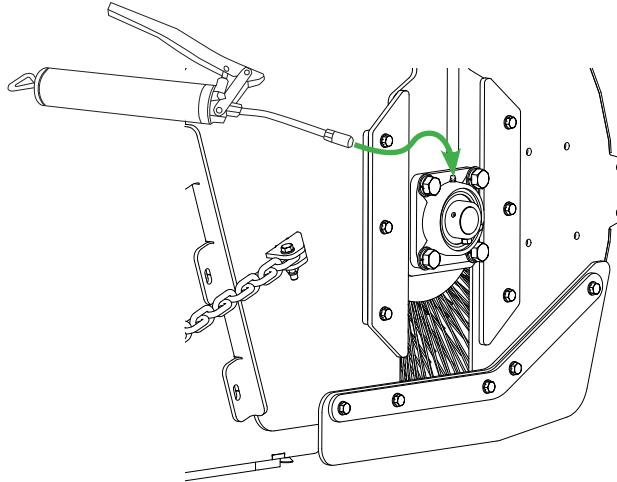




## Greasing

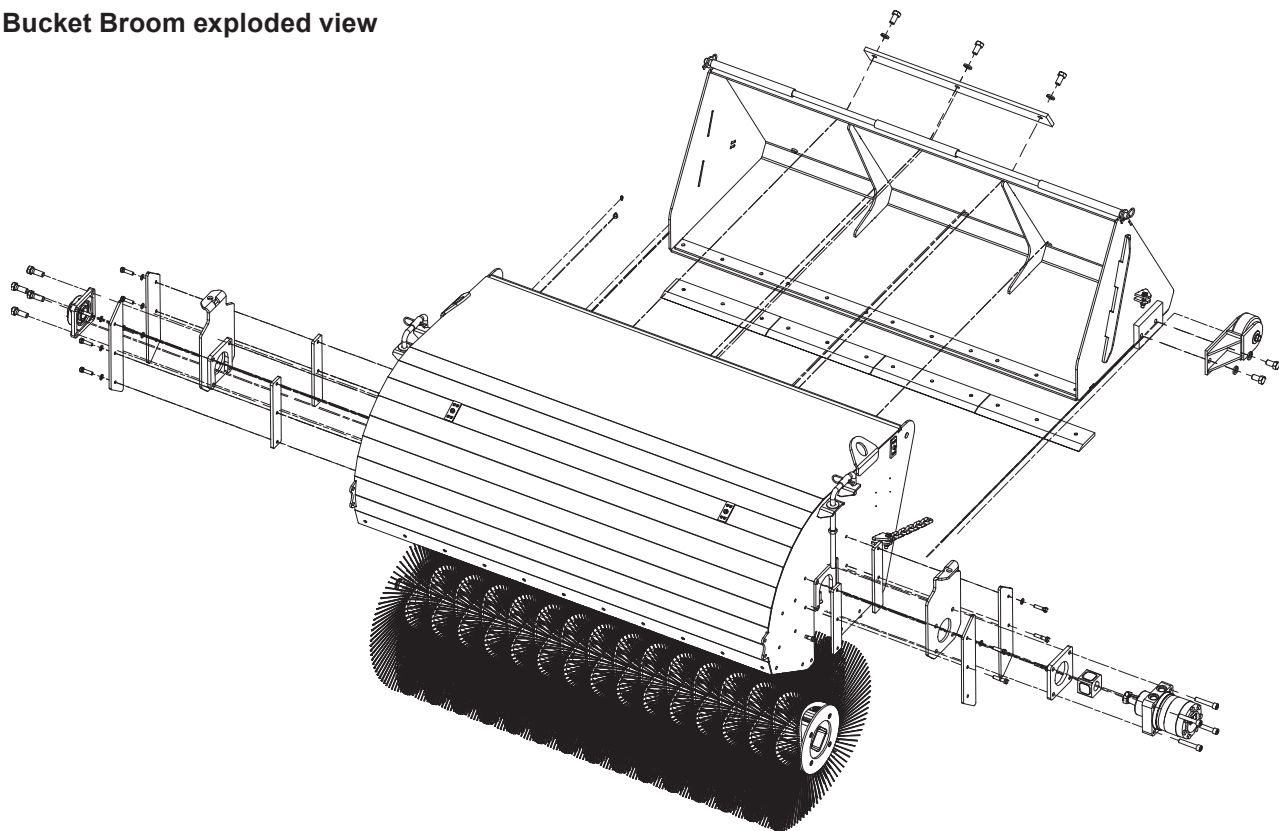
The broom bearing, located on the right-hand side of the hood, is equipped with a grease nipple that allows for the replacement of degraded grease from the bearing housing. This process helps to flush out any impurities that could otherwise reduce the bearing's lifespan.

- Always ensure that you clean the grease nipple and greasing gun nozzle before fitting them.
- Grease the Sweeper Bucket Broom bearing every 40 working hours. However, this interval should be shorter when operating in aggressive environments.



# Maintenance

## Bucket Broom exploded view



## Technical Specifications

<b>DESCRIPTION</b>	<b>60"</b>	<b>72"</b>	<b>84"</b>
BRUSH WIDTH	60"	72"	84"
OVERALL WIDTH*	74"	86"	98"
DEPTH	50"	50"	50"
HEIGHT*	30"	30"	30"
WEIGHT*	950 LBS	1060 LBS	1165 LBS
MAX FLOW (DO NOT EXCEED)	20 GPM	20 GPM	20 GPM
MAX PRESSURE (DO NOT EXCEED)	3500 PSI	3500 PSI	3500 PSI
BRUSH DIAMETER	26"	26"	26"
GUTTER BRUSH ADDITIONAL WEIGHT	55 LBS	55 LBS	55 LBS
WATER TANK ADDITIONAL WEIGHT	166 LBS	166 LBS	166 LBS

\*Does not include gutter brush/water tank.

## Spare Parts

For spare parts of your Sweeper Bucket Broom, obtain the serial number from the aluminum serial tag located on the side of the hood of the Bucket Broom. The serial number allows Digga to trace all production and service records. Ensure all service and maintenance is performed by an authorized Digga service agent and all service records are kept. Below is a list of common replacement parts for your Sweeper Bucket Broom. For all other spare parts contact your nearest Digga dealer or Digga Head Office.

DESCRIPTION	QTY REQUIRED			PART NUMBER
	60"	72"	84"	
RUBBER GROMMET	4	4	4	BR-000130
26" X 8" POLY CONVOLUTED WAFER	30	36	42	BR-001922
26" X 8" POLY/WIRE CONVOLUTED WAFER	30	36	42	BR-001979
CUTTING EDGE 400MM (84" USES 4)	4	1	4	BR-000152
CUTTING EDGE 500MM (72" USES 3)	-	3	-	BR-000242
CUTTING EDGE 600MM (84" USES 1)	-	-	1	BR-000151
GUTTER BRUSH	1	1	1	BR-001960

For further information on spare parts, please contact one of the Digga sales offices shown below, or contact your local authorised Digga dealer.

## DIGGA INTERNATIONAL SALES OFFICES

### ASIA PACIFIC

#### DIGGA HEAD OFFICE - BRISBANE

4 Octal St, Yatala QLD 4207  
Phone: +61 7 3807 3330  
Email: [info@digga.com](mailto:info@digga.com)

#### DIGGA NEW SOUTH WALES

19 Mckay Close,  
Wetherill Park, NSW 2164  
Phone: 1300 2 DIGGA  
Email: [nsw@digga.com](mailto:nsw@digga.com)

#### DIGGA VICTORIA

17-21 Babbage Dr,  
Dandenong, VIC 3175  
Phone: 1300 2 DIGGA  
Email: [vic@digga.com](mailto:vic@digga.com)

Web: [www.digga.com](http://www.digga.com)

### NORTH AMERICA

#### DIGGA NORTH AMERICA

2325 Industrial Parkway SW  
Dyersville IA 52040  
Phone: + 1 563 875 7915  
Email: [infous@digga.com](mailto:infous@digga.com)

Web: [www.diggausa.com](http://www.diggausa.com)

### EUROPE

#### DIGGA EUROPE

Unit 6, Smitham Bridge Road  
Hungerford Trading Estate,  
Hungerford, Berkshire RG17 0QU  
England, United Kingdom  
Phone: +44 (0) 1488 688 550  
Email: [infouk@digga.com](mailto:infouk@digga.com)

Web: [www.diggaeurope.com](http://www.diggaeurope.com)

# Troubleshooting

## Sweeper Bucket Broom

<b>Trouble</b>	<b>Possible Cause</b>	<b>Remedy</b>
Brush does not turn.	Quick Couplers not engaged properly. Quick Coupler failure. An obstruction in the hoses. Motor failure.	Check hoses and engage properly. Replace faulty coupler. Remove obstruction. Contact your local Digga Dealer.
Does not sweep correctly.	Incorrect brush height adjustment. Worn brush. Brush RPM too fast or too slow. Parent machine travel too slow or too fast. Incorrect brush rotation and or travel direction.	Check and adjust. Replace brush. Adjust brush RPM to suit conditions. Adjust travel speed. Adjust brush rotation and travel speed.
Hydraulic oil over heating.	Relief valve set too low on parent machine. Restriction in hose or quick coupler. Faulty coupler. Parent machine not equipped with oil cooler or sufficient oil capacity.	Test and set as needed. Inspect and repair. Inspect and repair. Stop, allow to cool when it gets hot.
Brush wearing quickly.	Brush RPM too high. Incorrect brush adjustment. Brushing highly abrasive material.	Reset or lower RPM. Check and adjust. Contact your local Digga Dealer.
Bucket wear edges wearing quickly.	Broom being used at incorrect angle.	Adjust broom angle.

## Gutter Brush Accessory

<b>Trouble</b>	<b>Possible Cause</b>	<b>Remedy</b>
Oil Leak.	Loose connection. Damage to fittings.	Check. Repair or replace.
Oil leak at motor.	Damage to hoses. Damage to motor. Blown seal.	Repair or replace. Contact your local Digga Dealer. Contact your local Digga Dealer.
Not Cleaning properly.	Worn brush. Incorrect rotation. Incorrect brush angle.	Replace. Reset flow for correct rotation. Reset broom to correct angle.





## Warranty Statement

All new Digga products are warranted to be free from defects in materials or workmanship, for a period of twelve (12) months from date of original purchase, which may cause failure under normal usage and service when used for the purpose intended. Digga North America LLC warrants its equipment for a period of twelve (12) months dating from delivery to the original user.

In the event of failure (excluding cable, ground engaging parts such as sprockets, digging chain, bearings, teeth, tamping and demolition heads, blade cutting edges, pilot bits, auger teeth, auger heads ), if after examination, Digga determines failure was due to defective material and/or workmanship, parts only will be repaired or replaced. Digga may request defective product or products be returned prepaid to them for inspection at their place of business or to a location specified by Digga. The warranty will be considered void if the product or any part of the product is modified or repaired in any way not expressly authorized by Digga, or if closed components are disassembled prior to return. Closed components include, but are not limited to: gearboxes, hydraulic pumps, motors, cylinders and actuators. Any goods returned to Digga by the customer under warranty or repair must have all freight charges prepaid for on the customers account.

Any claims under this warranty must be made within fifteen (15) days after the Buyer learns of the facts upon which such claim is based. All claims not made in writing and received by Digga outside the time period specified above shall be deemed waived.

### **Damage or failure through operator abuse or negligence voids warranty.**

This warranty is in lieu of all other warranties expressed or implied and there are no warranties of merchantability or of fitness for a particular purpose. In no event shall Digga be liable for consequential or special damage. Digga's liability for any and all losses and damages to buyer, resulting from any cause whatsoever, including Digga's negligence, irrespective of whether such defects are discoverable or latent, shall in no event exceed the purchase price of the particular products with respect to which losses or damages are claimed, or, at the election of Digga, the repair or replacement of defective or damaged products.

