



## OPERATORS MANUAL

**ATTACHMENT:- BUCKET BRUSH SWEEPER - BBS**

**SERIAL NUMBER.....**



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**PART NUMBER: WHCE0223**

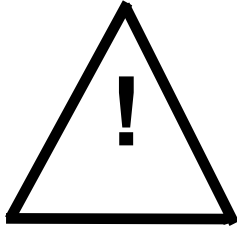
# OPERATORS MANUAL

## FOREWORD

In these Safety and Operating Instructions the following words are defined as follows:-

**'ATTACHMENT'**:- A bucket or attachment which is classed as a machine under the CE machinery Directive.

**'MACHINE'** or **'HOST MACHINE'**:- A Telescopic loader, loading machine.



## WARNING

**INCORRECT USE OF THIS ATTACHMENT OR FAILURE TO FOLLOW INSTRUCTIONS CONCERNING SAFETY CAN LEAD TO SERIOUS INJURY OR DEATH.**

**BEFORE USING THIS ATTACHMENT:**

- 1. READ THIS MANUAL CAREFULLY.**
- 2. MAKE SURE THAT THIS ATTACHMENT IS SUITABLE FOR USE ON THE HOST MACHINE & BUCKET.**
- 3. CLEAR THE AREA OF OTHER PERSONS.**
- 4. LEARN AND PRACTICE SAFE USE OF THIS ATTACHMENT AND HOST MACHINE IN A CLEAR AREA BEFORE YOU OPERATE THIS MACHINE ON A JOB SITE.**
- 5. IT IS YOUR RESPONSIBILITY TO OBSERVE PERTINENT LAWS AND REGULATIONS IN RESPECT OF THE OPERATION OF THIS ATTACHMENT AND THE HOST MACHINE.**

## TO THE OWNER

The attachment conforms to current safety regulations (see OFFICIAL JUSTIFYING DOCUMENTS on the following page).

However, this does not exclude all risk of accidents, which is why it is essential to observe elementary safety rules and precautions.

Before putting this attachment into service please ensure that:-

1. The operator has read and fully understands this operator's manual.
2. The operator has received necessary training on the functions and capabilities of this attachment.
3. The information on the identification plate, which is fixed to the attachment, matches the information on the EC / UKCA Declaration of Conformity.

# OFFICIAL JUSTIFYING DOCUMENTS

## DECLARATION OF CONFORMITY




Whites Material Handling Ltd  
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 Brislington Trading Estate  
 Bristol BS4 5PF, United Kingdom  
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 Internet: www.whitesmh.co.uk

<b>UKCA</b>	<b>CE</b>
<b>DECLARATION OF CONFORMITY</b>	
DATE OF MANUFACTURE.	CERTIFICATE/SERIAL NUMBER
26/11/2021	WO257550-1




	DESCRIPTION
WHITES PART NUMBER	BB576/WHI
CUSTOMER PART NUMBER/DESCRIPTION	BUCKET BRUSH SWEEPER 2290mm (7'6")
TO FIT MACHINE	
WEIGHT -kg	22

EXAMPLE

We, WHITES MATERIAL HANDLING LTD., declare under our sole responsibility that the product detailed above corresponds to the relevant basic safety and health requirements of the Directive 2006/42/EC and that the following standards and/or technical specifications have been respected - BS EN474-1:2006 +A4:2013

FOR AND ON BEHALF OF WHITES MATERIAL HANDLING LTD  
  
 MARTIN COLES, Project Engineer

-SAFETY (automatically certified as per 89/392/EEC.)

Attachment <input type="text"/>	Serial Number <input type="text"/>
Part Number <input type="text"/>	Date of Manufacture <input type="text"/>
S.W.L. (pallet fork attachment) [Kg] <input type="text"/>	Max Hyd Pressure [Bar] <input type="text"/>
MASS (WEIGHT) [Kg] <input type="text"/>	Capacity [m <sup>3</sup> ] <input type="text"/>
To fit Machine <input type="text"/>	Model <input type="text"/>
 Manufacturer / Supplier: Bristol, BS4 5PF, UK	 Tel. +44 (0) 117 972 0006 sales@whitesmh.co.uk
 <span style="font-size: 8px;">WH-CE-0208</span>	

ATTACHMENT IDENTIFICATION PLATE: Part No. WH-CE-0208

# LOADER MOUNTED ATTACHMENTS

1. SAFETY
2. OPERATING INSTRUCTIONS
3. MAINTENANCE
4. SUPPLEMENTARY INSTRUCTIONS

## 1. SAFETY

**1.1 GENERAL:** This attachment has been designed and built according to the state of the art and meets current safety regulations in force. However, this does not completely exclude the risk of accidents. It is therefore essential to follow basic safety rules and precautions.

The strict execution of the instructions provided in this manual will prevent accidents during attachment use and maintenance operations.

These instructions will only be effective if the attachment receives proper maintenance. Any defects or anomalies must be repaired immediately.

Only use this attachment for the purpose for which it was designed.

**1.2 BEFORE YOU OPERATE THE ATTACHMENT:** Please be aware that this attachment is designed to be used in conjunction with the host machine. It is essential, therefore, to be fully conversant with the correct operating procedures and safety instructions of the machine. Familiarise yourself with the attachment, and the loads to be carried.

Always follow the machine manufacturers' instructions in relation to connection, disconnection and operation of attachments.

**1.3 MAINTENANCE:**

### **! BEFORE CARRYING OUT ANY SERVICE WORK ON THE ATTACHMENT:**

- ***Lower the attachment to the ground.***
- ***Park the attachment on a hard level surface.***
- ***Disconnect hydraulic supply.***
- ***If necessary block attachment before commencing service work. Or use optional legs.***

When servicing the attachment, place a 'DO NOT START UP' label on the control panel of the machine and/or attachment.

Modifying the attachment without prior permission can cause serious injury. Do not undertake any modification without prior authorisation from White's or their Approved Agent.

Always wear eye protection when using a tool that may project metal particles. Use a hammer with a soft face, such as copper, for installing pins.

Pressurised hydraulic fluid or grease, which penetrates the skin can cause serious injury. Take the necessary safety precautions (safety clothing and protection for the face and hands) to avoid such risks. Also, before using these products, read the manufacturer's instructions for their use. If hydraulic fluid penetrates the skin, call a doctor immediately.

**1.4 FAILURE DURING OPERATION:** If an attachment failure occurs during operation, disconnect the attachment from the host machine and take measures against its' use until a satisfactory repair has been carried out.

1.5 SAFETY DECALS:

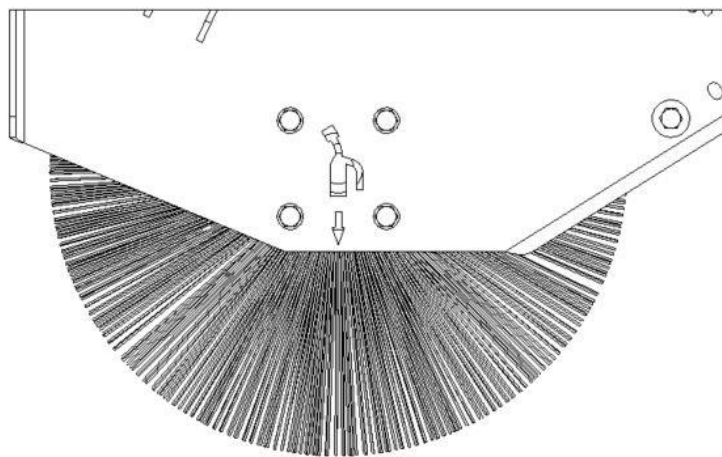
**! An illegible or missing decal may have serious consequences.  
Replace safety decals that are missing or damaged**



WH-CE-0207  
READ OPERATORS MANUAL, PRESSURE HAZARD



WH-CE-0051  
FLYING DEBRIS



GREASE POINT, UNDER SIDE

## 2. OPERATING INSTRUCTIONS

### 2.1. INSPECTION:

UPON DELIVERY:-  
Check for transit damage.  
Check hydraulic system for any damage or leaks.

DAILY INSPECTIONS:-  
Check for weld and/or structural failure.  
Check for insecure bolts, nuts and pins.  
Check for missing parts.  
Check for hydraulic leaks.  
Check for bristle wear.  
Check moving parts rotate and swivel, and are greased.

MONTHLY INSPECTIONS:- Check for excessive wear on all contact parts. Replace with genuine spares when necessary.

**2.2 APPLICATION:** For all earth moving, and load handling operations refer to the machine manufacturer's handbook for correct use of machine and its' controls.  
Ensure that the attachment is suitable for the work in hand. e.g. check that the capacity of the attachment is matched to the density of the load.

**Always carry the load low!**

**2.3. SITE FAMILIARITY:** Before operating the machine and attachment on a new site, check and locate any holes, obstacles, and debris that could be in the machine area,  
Locate any unavoidable 'danger areas' (electric power lines, bridges, tight corners, etc.) and make sure you can work safely in these areas.  
Electric power lines, gas pipes, water pipes or other underground installations can cause injury or death. Find out about the location of underground installations before you operate the attachment in a new area.  
Be aware of people in the vicinity of the attachment. Send away those whose presence is not required.

**2.4. NORMAL USE:**

**! Hillside operation can be dangerous. Rain, snow, loose gravel or soft ground change working conditions. Before you work on a hillside, make sure the attachment can be operated safely.**

This attachment is designed to operate with the host machine under normal working conditions. Care should be taken if weather or site conditions become difficult.  
Operate the attachment carefully and smoothly in poor weather and on uneven sites.

**2.5. OTHER USES:** This attachment is designed for a specific application. Do not carry out different applications with this attachment before first checking with Whites or their Agent.

**2.6. HANDLING AND TRANSPORTATION:** Buckets and attachments can become unstable when not connected to their host machine. Great care should be taken when handling or transporting buckets and attachments. Personnel should be made aware of the risk of injury if due care is not taken. When transporting, always ensure that the attachments are securely strapped or roped to the carrying vehicle.

### 3. MAINTENANCE

**! Never attempt to service a hydraulic circuit component without having first made sure it is no longer under pressure. To do this, carefully read the following instructions.**

**3.1. GENERAL INSTRUCTIONS:** Attachments which operate with hydraulic power are supplied through the auxiliary hydraulic system of the host machine.

Connection to the auxiliary hydraulic circuit is by means of quick release couplers.

To connect or disconnect the quick couplers the operator must relieve the hydraulic pressure in the host machine. To relieve pressure, please see machine manufacturer's instruction manual.

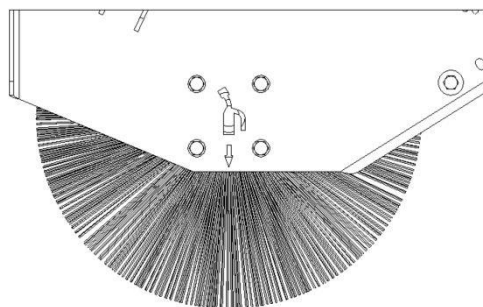
Regularly check the attachment for signs of damage or wear. Repair or replace damaged components immediately.

If welding repairs are necessary, please observe the following points:-

1. Remove attachment from host machine.
2. Always employ a competent and fully qualified welder to carry out the repair.

When ordering replacement parts always quote the part number and attachment serial number.

**3.2. LUBRICATION: DAILY OR EVERY 8 HOURS OPERATION:-** Grease all moving parts with Molydisulphide Grease, including, but not limited to hinge points, hydraulic cylinder swivel points, wheels and bearings.



GREASE POINT, UNDER SIDE

**GROUND ENGAGING COMPONENTS:** Excessive wear to bristles will lead to reduced performance, replace where necessary.

## 4. SUPPLEMENTARY INSTRUCTIONS FOR THE OPERATION OF SPECIFIC ATTACHMENTS

### INTRODUCTION

The bucket brush sweeper is designed to convert a standard bucket into a hydraulically powered sweeping attachment.

The supplied brackets (BBSB) are designed to be welded to a bucket to allow for the quick disconnect of the attachment, enabling a fast turn round of use for the host machine. These brackets also allow the brush to swing out of the way of debris when emptying the bucket.

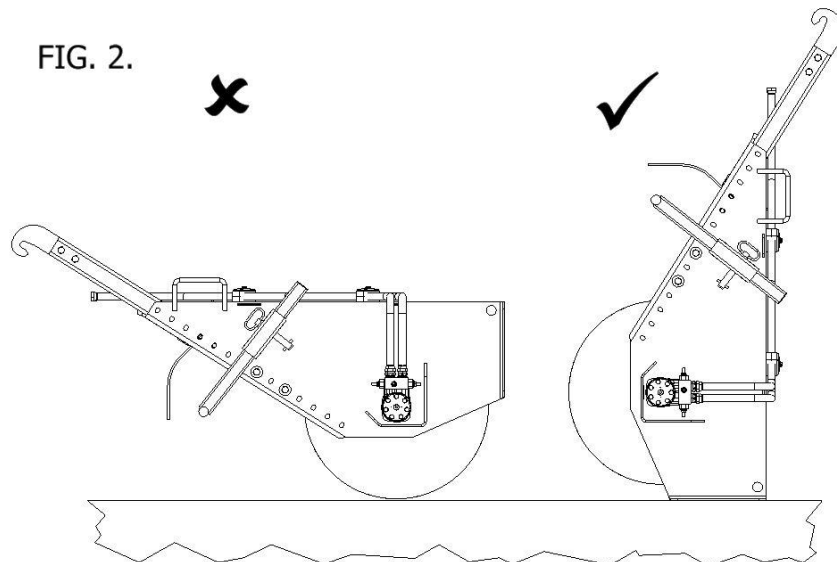
The supplied arms and legs (FIG.5.) & (FIG.6) are adjustable to suit the size and shape of the bucket, to ensure good sweeping function. See "connecting sweeper to host machine"

### SAFETY

- 1) It is essential that before operating this attachment the operator is fully capable of safely operating the host machine.
- 2) The operator should ensure that no other persons are present in the working area.
- 3) Do not exceed 5mph, Avoid pot holes. Avoid man hole covers. Avoid curbs.
- 4) The operator should ensure that the attachment is the correct unit for the host machine by checking the attachment identification plate which is attached to the rear of the attachment.

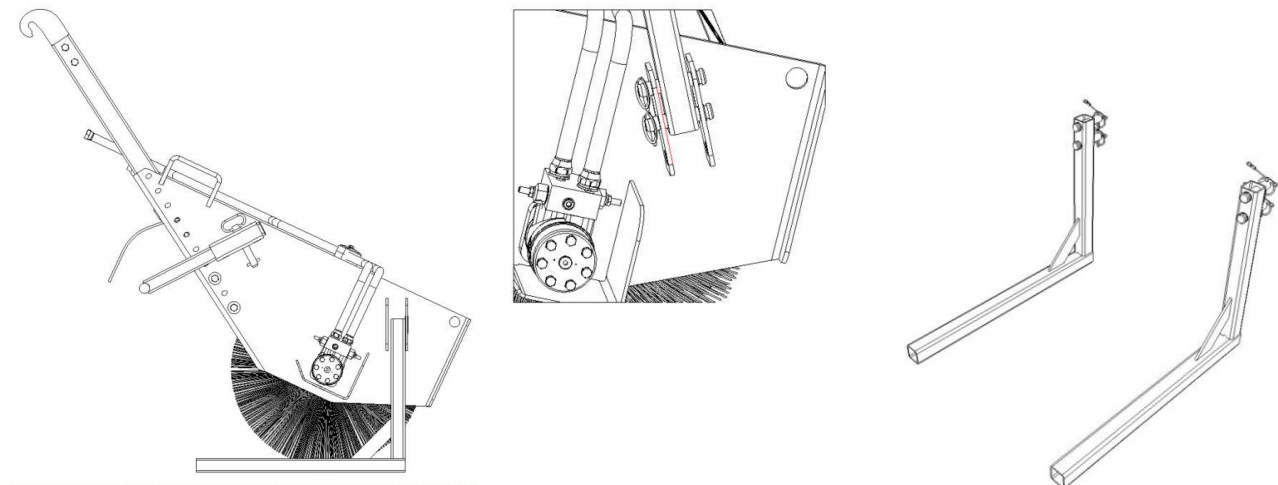
### STORAGE

- 1) Storage of the unit must be in the upright position, and not on the bristles. The upright position will allow quick connection to the host machine, and reduce bristle wear and flat spots.



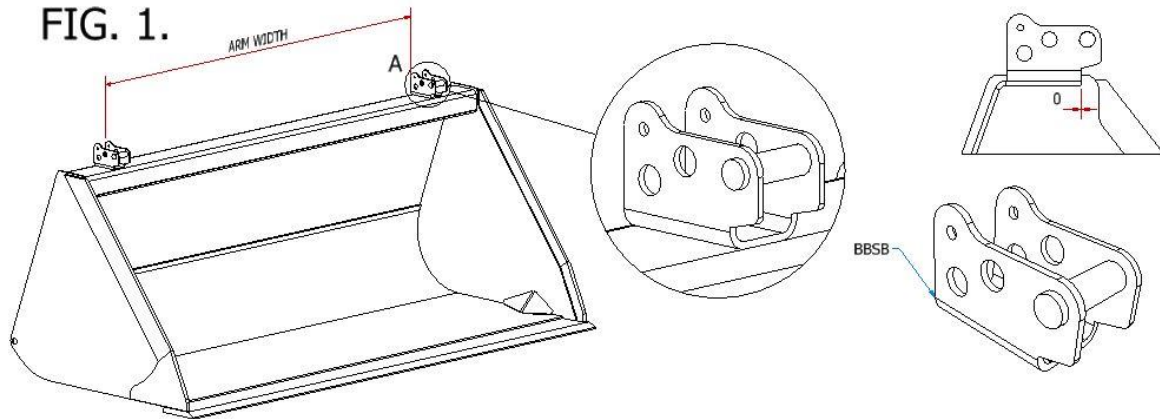
### 2) OPTIONAL PARKING LEGS- BBSF-KIT

The optional parking leg kit, BBSF-KIT, will allow the unit to be stored in a safe manner, whilst allowing faster access to connection with the bucket. When not in use, the legs can be rotated out the way, ready for easy deployment, and locked in place with lynch pins.



## CONNECTING THE BUCKET BRACKETS (BBSB)

- 1) The supplied brackets are design to be welded to the top edge of the bucket, level with the front face as can be seen in FIG.1. This will ensure clearance of the hook and arms. The width of the brackets must be symmetrical with the bucket, at a width determined by the brush arms & canopy width.

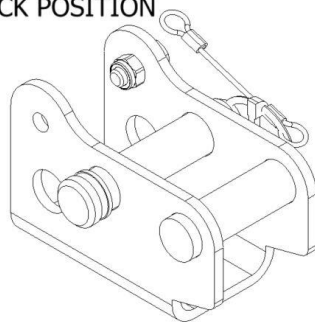


## CONNECTING SWEEPER TO HOST MACHINE.

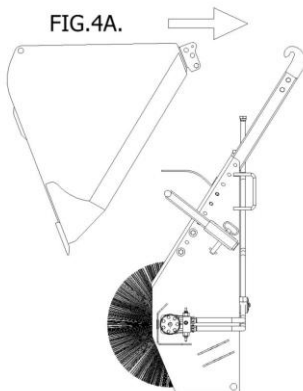
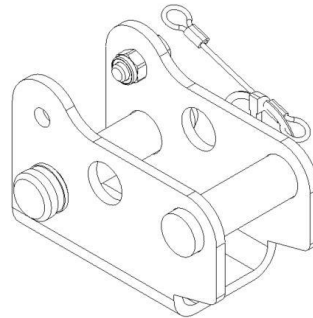
- 1) Ensure that Bucket brackets are welded to the bucket as FIG.1.
- 2) Ensure that Bucket brush is in the correct position, eg, storage, and quick connect position. FIG.2.
- 3) Ensure that hydraulic hoses are free of the bucket & sweeper connections.
- 4) Remove retaining pin. FIG.3A. from lock position and insert to the park position. FIG.3B.
- 5) Drive machine forward with bucket in dumped position. FIG.4A. and locate hook around pin on bucket bracket. FIG.4B.
- 6) Return bucket to level ground, and insert Bucket bracket retaining pin in locked position, FIG.3A.FIG 4C
- 7) Adjust arm length to ensure the bristles are the correct distance from the bucket.150MM-250MM. Fix in position with arm bolts. FIG.5. Arm length remains the same once set.
- 8) With bucket flat on the floor, adjust Leg length until the Legs BBSL, rest above the front edge of the bucket, FIG.8. and secure in place with locking handle, WHMI4796. FIG.6.This will need adjusting as bristles wear, see adjusting sweeping pattern
- 9) Connect auxiliary hydraulics to the host machine.
- 10) Test bristle rotation is as indicated in FIG.7.

**! DO NOT OPERATE WITHOUT THE RETAINING PIN IN THE LOCK POSITION. FIG3.A.**

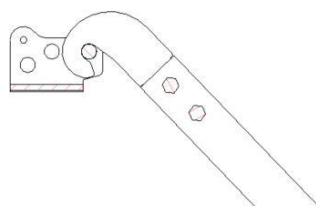
**FIG.3A. RETAINING PIN IN LOCK POSITION**



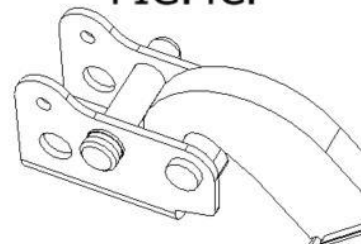
**FIG.3B. PIN PARK POSITION**



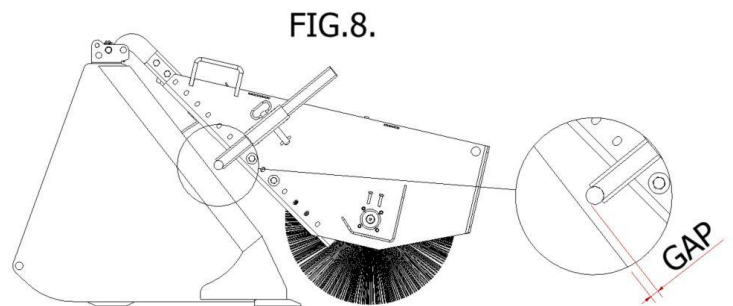
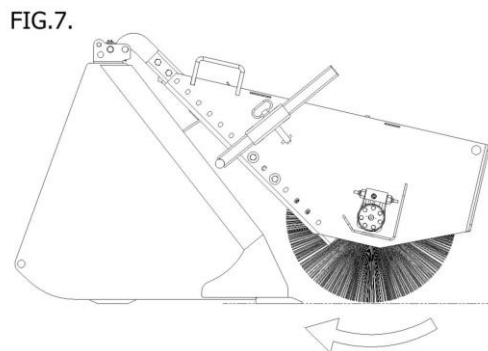
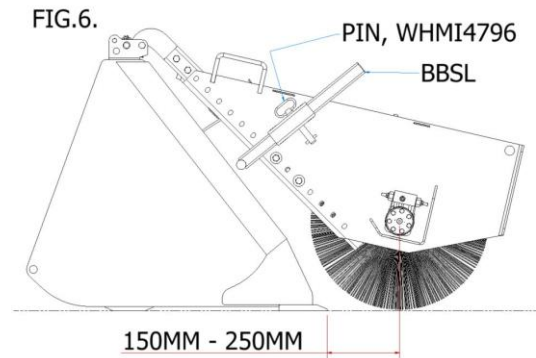
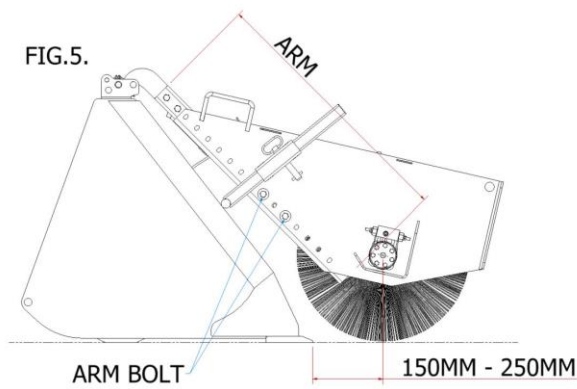
**FIG.4B.**



**FIG.4C.**







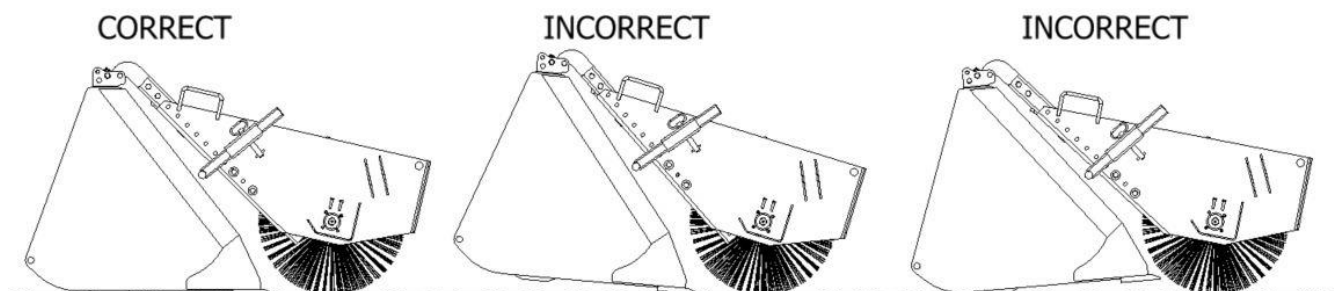
### ADJUSTING SWEEPING PATTERN

- 1) Ensure that Bucket is on flat and level ground,
- 2) Ensure host machine is switched off, and in park position.
- 3) As the bristles wear, the Legs will become closer to the bucket, or touch. Adjust Leg length until the Legs BBSL, rest above the front edge of the bucket to produce a gap as shown in FIG.8., and secure in place with locking handle, WHMI4796. FIG.6. The bristles should take the weight of the attachment when the bucket is on flat level ground.

### OPERATION

- 1) Raise the Bucket brush sweeper, until the bucket is free from ground.
- 2) Use auxiliary hydraulic service to test the bristle rotation direction. FIG.7.
- 3) Operate the auxiliary hydraulic circuit to start the rotation of sweeping bristles, and travel along the path to be cleaned. Do NOT exceed 5mph.
- 4) The brush can be operated in both directions of travel – the brush may work better on certain material when the machine is traveling in the reverse direction.

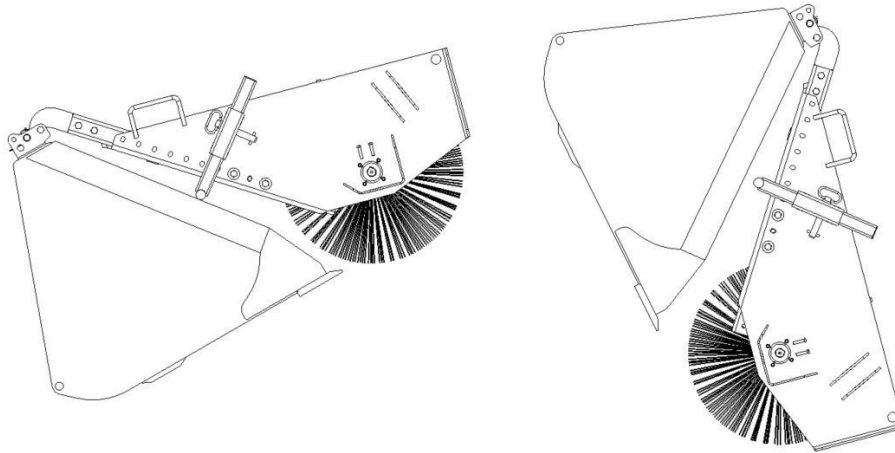
### CORRECT OPERATION – BUCKET ANGLE



**! INCORRECT OPERATION WILL LEAD TO PREMATURE WEAR OF THE HOST BUCKET !**

## EMPTYING THE BUCKET OF COLLECTED MATERIAL

- 1) Raise bucket and slowly rotate forwards
- 2) The bucket brush will swing clear of the bucket via gravity
- 3) Material will be discharged
- 4) Avoid fast movements or the bucket brush could damage the sides of the host bucket



## MAINTAINANCE

### DAILY OR EVERY 8 HOURS OPERATION

Check for damage and wear.

Replace damaged or worn components immediately to ensure safe and efficient operations of this attachment.

Check for damage or leaking of hydraulic components, fittings and hoses.

Ensure that motor and bearing are free from entangled materials

Grease bearing.

### CHANGING BRUSH SEGMENTS

- 1) Ensure that Attachment is in the storage position, FIG.2. Or safely supported.
- 2) Remove Motor & fastening bolts, and bearing nuts & bolts, and keep safe. FIG.9.
- 3) Remove End shaft keeper plate, and nuts & bolts, and keep safe. FIG.10. This will allow the removal of the brush segments.
- 4) Replace brush segments and repeat steps 3 and then 2.

FIG.9.

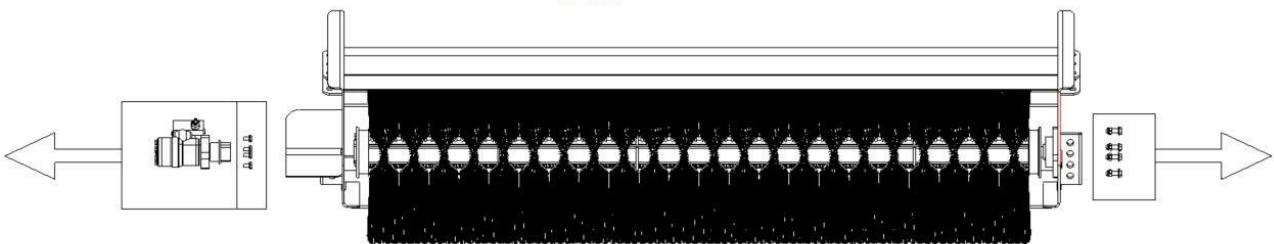
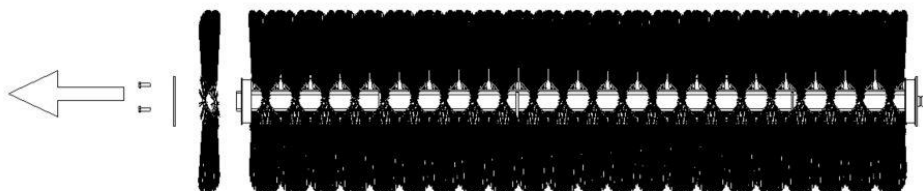
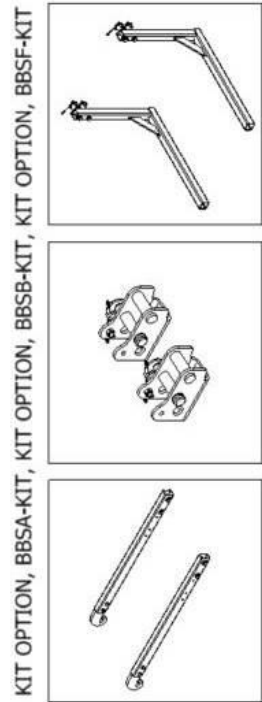
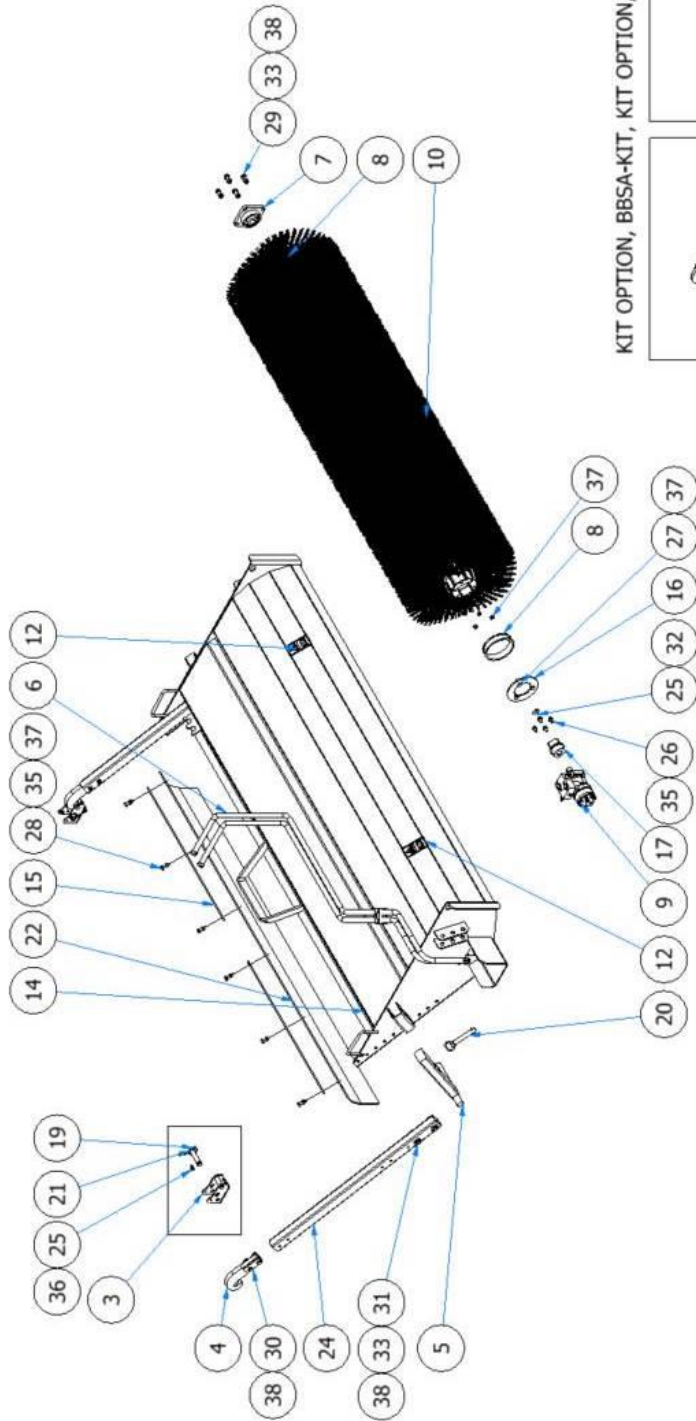


FIG.10.



# PARTS LIST



KIT OPTION, BBSA-KIT, KIT OPTION, BBSB-KIT, KIT OPTION, BBSF-KIT

**KITS AVAILABLE:-**  
 BBSB-KIT:- BRACKET KIT (PAIR) ITEM 3, 19, 21, 25, 36  
 BBSF-KIT:- PARKING LEGS (PAIR)  
 BBSA-KIT:- ARM KIT (PAIR) ITEM 4, 24, 30, 31, 33, 38

ITEM QTY	PART NUMBER	DESCRIPTION	ITEM QTY	PART NUMBER	DESCRIPTION	ITEM QTY	PART NUMBER	DESCRIPTION
1	BBS2290C	2290MM CLIP ON SWEEPER CANOPY - W/A	15	WHL13018	CLAMP STRIP	27	ZB100030	M10 ZINC SET SCREW 30MM GR8.8
2	BBS2290C-02	2290MM SHAFT WAVY DISC - W/A	16	WHL13476	OUTER DISC (M)	28	ZB100035	M10 ZINC SET SCREW 35MM GR8.8
3	BBSB	CLIP ON SWEEPER - BRACKET ASSEMBLY	17	WHM44839	DRIVE DOG	29	ZB120040	M12 SET SCREW 40MM
4	BBSH-01	CLIP ON SWEEPER - HOOK - W/A	18	WHM44238	PLASTIC RECT INSERT 60X40X3	30	ZB120055	M12X55 HT HEX HD BOLT Z/P DIN 931
5	BBSL-01	CLIP ON SWEEPER - LEG - W/A	19	WHM4671	.LANYARD + LYNCH PIN ASSEMBLY	31	ZB120070	M12X70 HT HEX HD SCREW Z/P DIN 931
6	HMB0528	HOSE KIT	20	WHM4796	HITCH PIN, WITH CHAIN - ZPAS - (DIA 19, 98MM) (S-408/900408)	32	ZW08000P	M8 ZINC PENNY WASHER 30MM O/D
7	WHB0040	BEARING (BB) 303				33	ZW12000A	M12 ZINC WASHER FORM A
8	WHB00350	SPACER 5"	21	WHM4797	PIN - PIN TOP LINK CAT 1 - 19MM/70MM - (128)	34	ZW12000G	M16 ZINC WASHER FORM G
9	WHB00419-COMP	MOTOR & VALVE & NUTS & BOLTS ETC...	22	WHM4816	DUST SKIRT 6 x 300 x 1800	35	ZW100000	M10 ZINC WASHER FORM A (STD) (20MM O/D)
10	WHB00423	POLY SEGMENTS CONVOLUTED/WAVY 127 X 550 X 45 - (322-0238)	23	WHM4816-KIT	DUST SUPPRESSION KIT	36	ZY080000	M8 NYLOC ZINC NUT GR8.8
			24	WHM4886	ARM BOX	37	ZY100000	M10 NYLOC ZINC NUT GR8.8
12	WHCE0051	FLYING DEBRIS	25	ZB080020	M8 ZINC SET SCREW 20MM GR8.8	38	ZY120000	M12 NYLOC ZINC NUT GR8.8
14	WHCE0208	WMH ALUMINIUM CE LABEL	26	ZB100020	M10 ZINC SCREW 20MM GR8.8	58	WHCE0207	DECAL READ OPERATORS MANUAL & HYDRAULIC WARNING