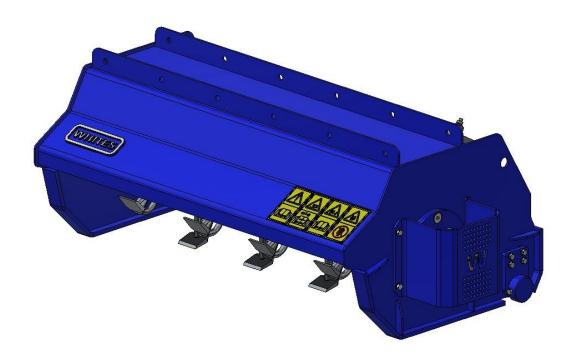


ATTACHMENT OPERATORS MANUAL

ATTACHMENT.....

SERIAL NUMBER.....



WHITES MATERIAL HANDLING Ltd. 17-19 EMERY ROAD BRISLINGTON, BRISTOL. BS4 5PF. U.K. TEL. +44(0) 117 972 0006

http://www.whitesmh.co.uk

PART NUMBER:- WHCE0286

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.

The attachments covered under these Safety and Operating Instructions are flail mowers, as classed as a 'machine' under the CE Machinery Directive.

'MACHINE' or 'HOST MACHINE':- A wheeled or tracked loading machine (skid steer, backhoe loader, articulated loader or excavator) which connects to and powers the attachment.



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.
- 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 RESPONSIBILTY TO OBSERVE PERTINENT LAWS AND REGULATIONS IN RESPECT OF THE OPERATION OF THIS ATTACHMENT AND THE HOST MACHINE.

TO THE OWNER

You are the owner of an attachment that has been built to operate correctly on your host machine.

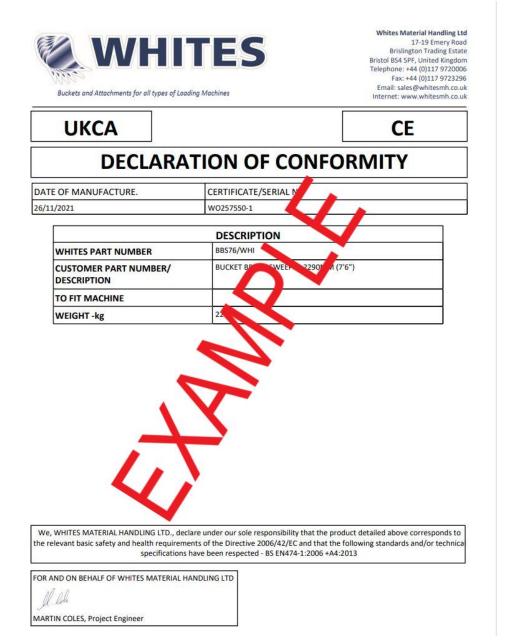
The attachment conforms to current safety regulations (see OFFICIAL JUSTIFYING DOCUMENTS on the following page).

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 rear top left corner of the attachment, matches the information on the EC Declaration of Conformity.

OFFICIAL JUSTIFYING DOCUMENTS



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

Attachment	Serial Number
Part Number	Date Of Manufacture
S.W.L (pallet fork attachment) [Kg]	Max Hyd Pressure [Bar]
MASS (WEIGHT) [Kg]	Capacity [m³]
To Fit Machine	
JK Manufacturer / Supplier: WHITES Bristol, BS4 5PF, UK	Tel . +44 (0)117 972 0006 () sales@whitesmh.co.uk

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

EXCAVATOR MOUNTED ATTACHMENTS

- 1. SAFETY
- 2. OPERATING INSTRUCTIONS
- 3. MAINTENANCE
- 4. SUPPLEMENTARY INSTRUCTIONS
- 5. WARRANTY

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.

Be prepared for emergencies. Always carry a first aid kit and a good fire extinguisher with you and know how to use them.

1.3 OPERATING THE ATTACHMENT:

! NEVER GET ON OR OFF A MOVING MACHINE

Keep all tread plates clean and free from grease, mud and (in winter), snow and ice.

Get to know the machines possibilities and the working space required.

Always wear the correct protective clothing relevant to the working conditions.

Dust, fog, smoke etc. can reduce visibility and cause an accident. Operate with extreme caution in these conditions.

Before starting work, check that the attachment is properly connected to the host machine and that all the functions operate correctly. See the machine manufacturer's manual for the correct connecting procedure.

Never carry any person on the attachment.

Make sure there is nobody standing near the attachment.

Do not allow anyone to stand in the 'Danger Zone' (operating area).

Do not jump off the attachment - you can get hurt.

Keep away from dangerous areas, such as ditches, over-hangs, cliffs, etc. Look for hazards.

Use all the controls gradually so that the attachment works smoothly.

When operating or servicing an attachment, wear suitable protective clothing.

1.4 MAINTENANCE:

BEFORE CARRYING OUT ANY SERVICE WORK ON THE ATTACHMENT:

- Park the host machine on a hard level surface.
- Lower the attachment to the ground.
- Apply the parking brake and shut down the engine.
- Block the machine to prevent any movement.

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

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.

1.5 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.

1.6 SAFETY DECALS:

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

DECALS - WHOLE DECAL SHEET PART # WH-CE-FM



DECAL	PART NUMBER	DESCRIPTION
	WH-CE-0050	SAFETY LABEL – WARNING – DANGER, READ THE INSTRUCTIONS
	WH-CE-0051	SAFETY LABEL – WARNING – FLYING DEBRIS, READ THE INSTRUCTIONS
	WH-CE-0053	SAFETY LABEL – WARNING – HYDRAULIC OIL UNDER PRESSURE, READ THE INSTRUCTIONS

50M □↔ 1	WH-CE-0287	SAFETY LABEL – WARNING – ROTATING SHAFT, KEEP AWAY
STOP	WH-CE-0288	SAFETY LABEL – WARNING – SHARP EDGES CAN CUT, WAIT UNTIL SHAFT IS STOPED
8	WH-CE-0004	GREASE EVERY 8 HOURS

2. OPERATING INSTRUCTIONS

2.1. INSPECTION:

UPON DELIVERY:- Check for transit damage.

Check hydraulic system for any damage or leaks.

Remove transport bolts

DAILY INSPECTIONS:- Check for hydraulic leaks.

Check for insecure bolts, nuts and pins.

Check for missing parts.

MONTHLY INSPECTIONS:- Check for excessive wear on canopy, roller and teeth. Replace with genuine spares when necessary.

2.2 APPLICATION: For cutting of grass, scrub, brush and similar vegetation, 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 thickness of the material being cut.

Always carry the attachment 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 has to 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:-

- 3.1.1. Remove attachment from host machine.
- 3.1.2. Always employ a competent and fully qualified welder to carry out the repair.

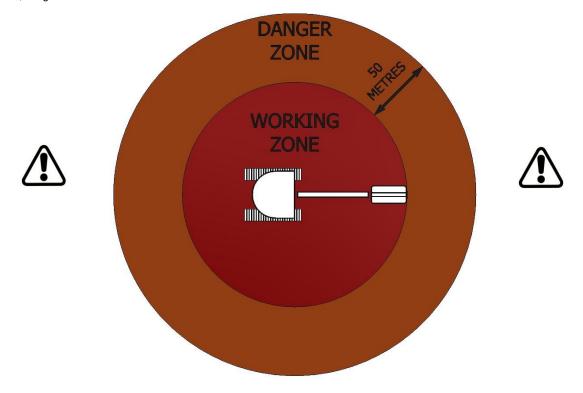
When ordering replacement parts always quote the part number and attachment serial number.

- 3.2. LUBRICATION: DAILY OR EVERY 8 HOURS OPERATION:- Grease all moving parts with Molydisulphide Grease.
- **3.3. SWINGING HAMMERS / KNIVES COMPONENTS:** Excessive wear to swinging hammers/knives, will lead to reduced performance. Replacing these parts when necessary, will increase performance, and reduce wear and tear to the host machine.

4. SUPPLEMENTARY INSTRUCTIONS FOR THE OPERATION OF FLAIL MOWERS

4.1. SAFETY

- 4.1.1) It is essential that before operating this attachment the operator is fully capable of safely operating the host machine.
- 4.1.2) The operator should also be aware that the action of the flail is potentially dangerous to bystanders.
- 4.1.3) The operator should ensure that no other persons are present in the working zone or danger zone. Working zone is the reach of the flail, danger zone is 50Metres out from this.



- 4.1.4) The operator should be aware for the intended use for the Flail mower.
- 4.1.5) The operator must not use this product for alternate uses, eg lifting
- 4.1.6) Ensure the weight of the flail mower does not exceed the safe working load of the host machine.
- 4.1.7) Connection of the flail mower and the hydraulic hoses should be carried out as per the instructions in the host machines manual.
- 4.1.8) Ensure the hydraulic lines are connected to the auxiliary line with free flow return (hammer line) MAX back pressure is 8 bar. Failure to adhere to this will void any warranty and cause damage to seals and/ore motor.

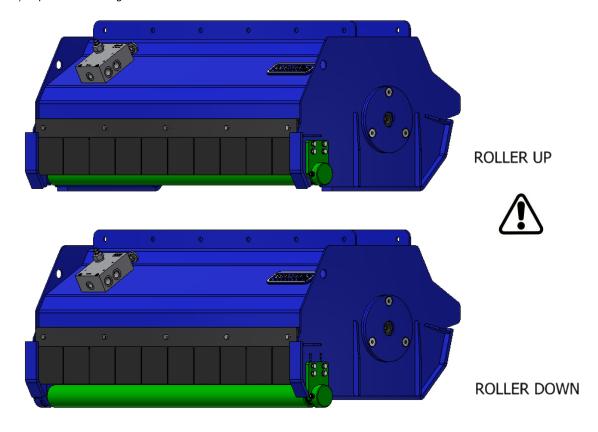
4.2. OPERATION

- 4.2.1) This Flail mower is intended to cut grass, scrub, brush and similar vegetation
- 4.2.2) Once in the working area, and ready to start, lower the cutter head to 5cm above the items to be cut.
- 4.2.3) Operate the auxiliary hydraulic circuit and slowly increase speed to maximum.
- 4.2.4) Lower the head to the depth of cut required.
- 4.2.5) Move the Flail across the area to be cut, slowly crossing the area, at all times ensure no one is close to the machine.
- 4.2.6) The depth of cut can be controlled by the adjustable roller on the rear (see Fig 4.2.1 on adjusting its height)

4.3. ADJUSTING THE CUTTING HEIGHT

The cutting height can be adjusted by changing the height of the roller.

- 4.3.1) Remove nuts on the ends of the roller.
- 4.3.2) Move roller to new height.
- 4.3.3) Replace nuts and tighten.



4.4. TECHNICAL DATA INCLUDING DEPTH OF CUT

	FM06-1	FM10-3	FM12-5
MINIMUM OIL FLOW [L/min]	27 to 40	27 to 40	
MAXIMUM PRESSURE [bar]	250	250	
MAX CUTTING DEPTH	80mm	80mm	
MAX PRESSURE IN RETURN LINE [bar]	8	8	

4.5. SPARE WEAR PARTS

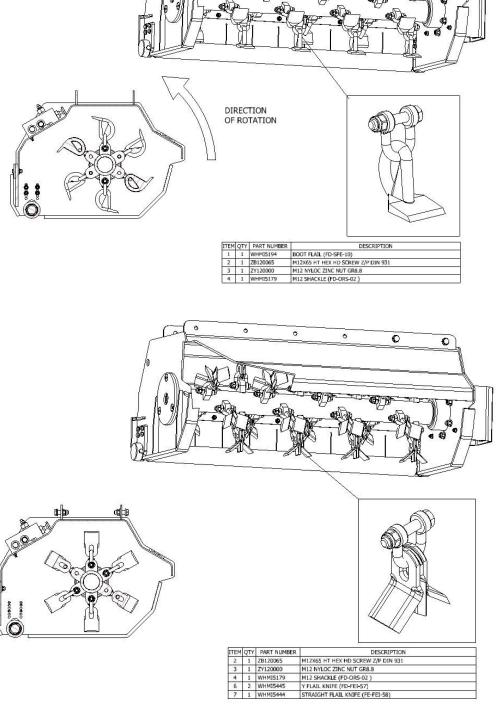
The flail mower can be fitted with different wear parts, hammers or knives depending on material to be cut.

- 4.5.1) inspect daily for wear or damage to cutting hammers & knives.
- 4.5.2) When replacing cutting hammers & knives, please beware that if a single item is broken, its opposite cutting hammer will also need to be replaced to ensure shaft stability. Shaft instability can cause excessive wear on bearings and lead to machine instability.

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4.5.3) When fitting cutting hammers, ensure to respect the direction of cut. These are NOT bi-directional.



4.6. MAINTAINANCE

DAILY OR EVERY 8 HOURS OPERATION

Grease all hinge and Hydraulic swivel points with molydisulphide grease.

Check for damage or leakage of hydraulic cylinders, hoses and fittings.

Check blades and hammers are clean and very sharp, if necessary, replace.

Do NOT sharpen with a grinder.
Check for material build up inside the product and remove.

Check all bolts & nuts are tight.





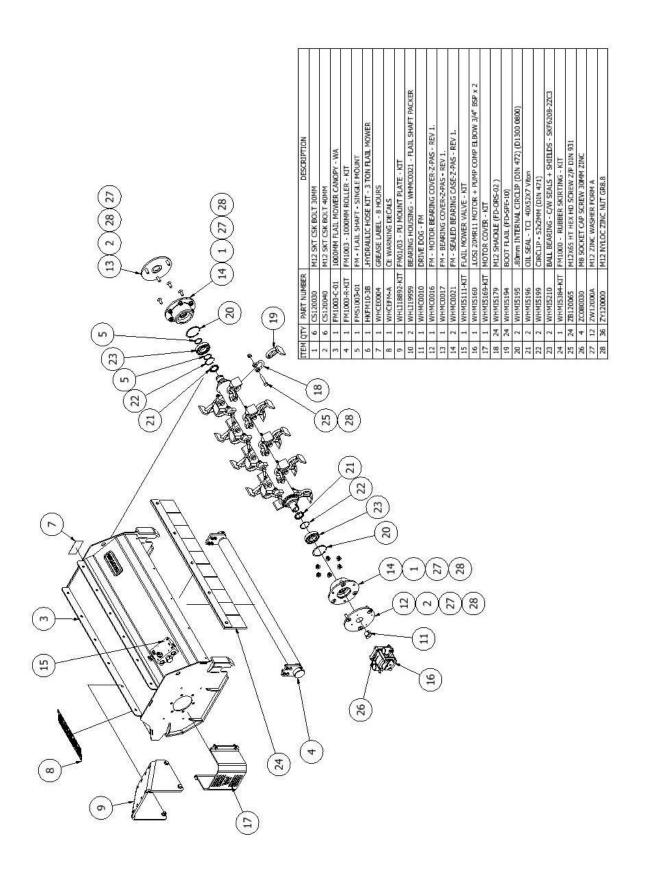
MONTHLY

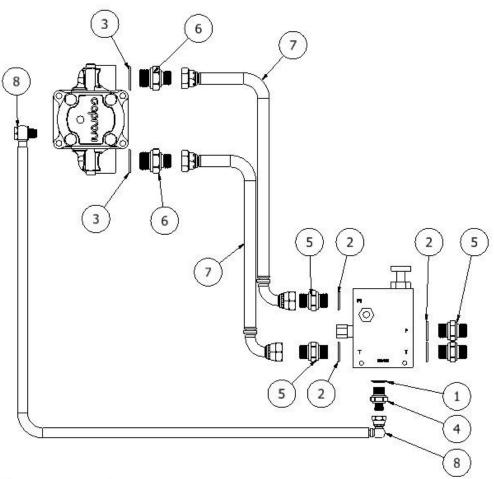
Check hammers or knives, hinges and general assembly for wear and damage. Replace damaged or worn components immediately to ensure safe and efficient operations of this attachment.

5. WARRANTY

For full terms and conditions please visit our website www.whitesmh.co.uk and review the SUPPORT pages

PARTS LIST - FM10-3





ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	HM001001	DOWTY SEAL 3/8"
2	4	HM001002	DOWTY SEAL 1/2"
3	2	HM001003	DOWTY SEAL 3/4"
4	1	HM001008	ADAPTOR 1/4"-3/8" M/M
5	4	HM001025	ADAPTOR 1/2"-1/2" M/M
6	2	HM001026	ADAPTOR 1/2"-3/4" M/M
7	2	HO129094	1/2" 2SC HOSE ~ Length = 470mm ~ Fitting 1 = 1/2" BSP SWEPT 90 ~ Fitting 2 = 1/2" BSP F - TEC SLEEVE
8	1	HO149938	1/4" 2SC HOSE - LENGTH 850mm - Fitting 1 1/4 BSP BANJO, BOLT + SEAL - 1/4 BSP 90' COMPACT, SET 0'