Operating Instructions

Vertical-Flail-Attachment
„ESM VS – 80“
„ESM VS - 65“
General safety instructions

Read the operating and the safety instructions before starting work with the attachment.
Give it to another users too.

Using the machine for its intended purpose

The vertical flail attachment is only built for the normal application by agricultural and forest working and for the care of the landscape. The machine should not be used for any other application. The manufacturer is not responsible for damage resulting from another application, the user takes the risk himself.

For the application according to the normal usage, the operating and maintenance instructions are to be followed.

The vertical flail attachment may be only used, maintained by persons which are informed about the operating instructions and about the danger.

The relevant instructions about accident preventions, and all general instructions for the technical safety and legal traffical are to be followed.

Any changes at the attachments exclude the manufacturer’s responsibility for resulting damage.

For your safety!!

The user must be trained on all operating controls and their functions before starting the work.
It could be too late during the work.

The engine should be turned off and the plug lead dis-connected before adjusting, maintenance and cleaning work is carried out.

Worn, damaged or missing guards must be replaced immediately. Spare parts must be according to original parts regarding the safety.
When danger is through thrown foreign bodies, persons must be moved away from the danger area.

Please take care of all manufacturer’s safety and warning instructions of the basis machine.

Check all screws and nuts after the first working hours and tighten them, if necessary.
Meaning of the symbols

Warning : Read the operating instructions before starting the work

Another persons are to be moved away from the danger area.

Keep away from rotating blades

Height of cut adjustment
SETTLEMENT

Please check the vertical flail attachment and basic machine according to the manufacturer’s instructions. Read also the operation instructions of the carrier-machine.

WORKING WITH THE VERTICAL FLAIL ATTACHMENT.

The vertical flail attachment must be checked for operating safety every time before starting work. Any damage must be repaired before starting work.

To adjust the height of cut, place the machine on solid and even ground. Always stop the motor.

The adjustment has to be done over the side skids. 
2 adjustments of the height are possible : appr. 40 and 55 mm height of the cut. The front screws can be placed according to the wished height of the cut (Photo 3). Adjust finally the side skids with rear slotted holes so that they lay evenly on the ground. (Photo 2). Tighten up all screws again.

Take care that no persons or animals are present in the danger area during the operation of the machine.

Find out all foreign bodies on unknown area and move them away.

Maintenance

Warning: First at all stop the motor and take off the spark plug lead before working on the machine.

- Change the blade sections (Photo 4)

Wear solid shoes every time you change of the blades. Contact of the blades with naked hands can cause injury.

Don’t grind blunt or damaged blades, but change them. Always change both blades, because of the balance of the cutting mechanism.

By every change of the blade the fastening parts: screw 560 3010, DU-bush 324 2370 and safety nut 537 0810 must be changed. 
Put screw (Pos. 5) from below into the blades carrier assembly (Pos. 4), lay on the blade section from the top into the blades carrier assembly and put the DU-bush so that it fits into the blades carrier assembly. Screw on safety nut (Pos.1) and tighten with Ma = 85 Nm. Bent blade carrier assembly must be changed. Tighten screw with Ma = 180 Nm.
• Change of the gear oil

For the first time, after 50 hours operating. The following changes after 600 hours. Raise the rear and put the mower vertical. Remove the lock screw and let the oil flow in a suitable vessel. Finally put the flail mower in the horizontal position and fill with 0,35 l SAE 90 EP gear oil. Replace the lock screw again.

• Blade brake

Checking of the function every 100 hours. Time of the blade stop < 7 seconds. When it is over the 7 seconds, the brake must be adjusted. Take off the cover cap. For opening the disc brake fix the blade carrier assembly and turn the entry shaft according to the pivot shaft's direction of the rotation until the end and hold it. And now adjust the distance of the brake disc to the angles of the brake linings by adjusting the brake linings angles in the slotted holes in the sides to 1 mm.

Worn brake linings must be changed.

Technical data

<table>
<thead>
<tr>
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<th>Vertical-Flail-Attachment 80</th>
<th>Vertical-Flail-Attachment 65</th>
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<tbody>
<tr>
<td>Width (cm)</td>
<td>88</td>
<td>73</td>
</tr>
<tr>
<td>Length (cm)</td>
<td>105</td>
<td>82</td>
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<tr>
<td>Height (cm)</td>
<td>38</td>
<td>33</td>
</tr>
<tr>
<td>Cutting width (cm)</td>
<td>80</td>
<td>65</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>82</td>
<td>60</td>
</tr>
</tbody>
</table>
EG- Declaration of conformity

ESM Ennepetal Schneid- und Mähtechnik
GmbH & Co. Kommanditgesellschaft
Kölner Str. 29
58256 Ennepetal

do declare in sole responsibility, that the product

Vertical Flail attachment 144.0010 until 144.1900

to which this declaration relates, complies with the pertinent and fundamental safety and
health requirements laid down in the EG Guidelines 89/392 EWG (if applicable)
as well as with the requirements of the pertinent standards

EN 12733

(if applicable)
The standard(s) and/or technical specification(s) set forth below were used to properly
implement the safety and health requirements laid down in the EG guidelines:

EN 292 Part 1 and 2 dated November 1991

Warning: We take your attention to the fact, that the operating is forbidden, until it is found
out, that the basis machine, in which this product is settled, is according to the
determinations of its guidelines.

Ennepetal, 17.02.2003

(Place and date of issue)

Chairman, Karl – Richard Strohn

(Name, function and signature of the authorized person)