SEW Maintenance Series

Brake Adjustment
Objectives

- After studying the contained information you will be able to accomplish the following:
  - Perform the proper adjustment to the air-gap setting
  - Perform the proper adjustment to the manual brake release
Tools and Materials

- What you will need:
  - 1 10mm Nut-driver
  - 1 8mm Nut-driver
  - 1 Medium Flat Tip Screwdriver
  - 1 External Snapring Pliers
  - 1 Metric Feeler Gage Pack
Safety

- Always follow the proper lockout/tagout procedures.

- Use the proper safety equipment at all times.
Step 1

- Disconnect all power sources to the motor.
Step 2

- Using the 8mm nut-driver, remove the four (4) small screws that hold the fan guard in place.
Step 3

- Remove the fan guard.
Step 4

- Using the external snapring pliers, remove the snapring that secures the fan.
Step 5

- With the medium sized flat-tip screwdriver, gently pry the fan up and down to loosen and remove it. Use caution to avoid damaging the fan!
Step 6

- Using the flat tip screw driver, remove the 2 brake sealing band clamps (if applicable).
Step 7

- Remove the brake sealing band with the flat tip screwdriver, using caution not to damage the sealing band.
Step 8

- Using the metric feeler gauge, determine the current air-gap setting.

Caution!

The air-gap is located between the coil body and the stationary disc.

The measurement must be taken here for a proper reading.
### Step 9

To determine the proper air-gap, please refer to the first chart on page 4 of the Motor and Brakemotor Operating Instructions (Document # 09 793 77).

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#### Establishing

**To adjust the brake air gap:**

1. Ensure that the motor is in operation and the brake is energized.
2. In order to avoid slippage, the brake should be gradually released.
3. Gradually increase the brake air gap until the brake begins to slip.
4. Adjust the brake to the appropriate air gap.

**Table: Establishing the Brake Air Gap**

<table>
<thead>
<tr>
<th>Motor Size</th>
<th>Brake Size</th>
<th>Air Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>DT71 - DT100</td>
<td>BM(G)05 - BM(G)4</td>
<td>0.010&quot; - 0.024&quot; (0.25 - 0.6 mm)</td>
</tr>
<tr>
<td>DV112 - DV225</td>
<td>BM(G)3 - BM(3)1</td>
<td>0.012&quot; - 0.047&quot; (0.3 - 1.2 mm)</td>
</tr>
<tr>
<td>DV180 - DV225</td>
<td>BM26-262 Double Disc</td>
<td>0.016&quot; - 0.047&quot; (0.4 - 1.2 mm)</td>
</tr>
<tr>
<td>DV250 - DV280</td>
<td>BMG61</td>
<td>0.012&quot; - 0.047&quot; (0.3 - 1.2 mm)</td>
</tr>
<tr>
<td></td>
<td>BMG122 Double Disc</td>
<td>0.016&quot; - 0.047&quot; (0.4 - 1.2 mm)</td>
</tr>
</tbody>
</table>

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There are two brakes available:

- **The *NH* brake** uses a spring to retract the brake shoes.
- **The *MB* brake** uses a spring to retract the brake shoes.

The spring return mechanism ensures that the brake shoes are centered and ready for operation.

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*Note: In case of any questions or concerns, please refer to the Motor and Brakemotor Operating Instructions (Document # 09 793 77).*
Step 10

- Using the metric feeler gage and the 10mm nut driver, tighten or loosen the three retaining nuts, until you achieve the proper air-gap.

Caution!

Adjustments to the air-gap must be made evenly. Adjust each nut and recheck adjustment once the final gap has been set.
Step 11

- Note: Any adjustment to the air gap will also affect the play in the manual release.
To determine the correct free play (clearance), please refer to the next to last paragraph on page 4 of the Motor and Brakemotor Operating Instructions (Document # 09 793 77).

Since the stationary disc (22) will move away from the coil body during the brake's operation, it is vital that there is free play (floating clearance) on the release arm of 0.060" - 0.080" (1.5 - 2.0 mm). The springs (11) should be placed between the arm (7) and the nuts (12) to eliminate noise.
Step 13

- Using the 8mm nut driver and the metric feeler gage, adjust the manual release arm until the proper amount of play is achieved.

Caution!
There must always be clearance on the lever.

Note: The brake release mechanism is not used to change the brake’s torque setting.
Step 14

- Using the flat tip screwdriver, re-install the rubber brake band, using caution to not damage the band.
Step 15

- Re-install the 2 brake band clamps using the flat tip screwdriver.
Step 16

- Re-install the fan.
Step 17

- Re-install the snapring using the snapring pliers.
Step 18

- Re-install the motor fan guard, using the 8mm nut driver.
Step 19

- Reconnect power and confirm the proper operation of the brakemotor and attached equipment.