Retrofit circuit breaker operating mechanism ELK-HMB03
SF6-gas-insulated switchgear type ELK-03

A retrofit solution for existing model AHMA hydromechanical operating mechanisms is a reliable and economical option to extend the service life of the circuit breaker.

Introduction
The hydromechanical operating mechanism is a key component of the circuit breaker, which stands for a high level of availability and reliability of the switchgear. It is in the interest of ABB to develop new services and solutions in order to maintain the plant equipment of its customers in the best possible condition.

Reasons for a retrofit
After 20-25 years in operation, the existing AHMA operating mechanisms are not state of the art and no longer represent a part of the current portfolio. Obsolete technologies increase the risk of failure and the necessary maintenance cost and effort. In the case of unforeseen failures, the availability of spare parts can no longer be guaranteed, which, at the same time, also has a considerable affect on the reliability of the switchgear.

Product description
The existing circuit breaker operating mechanism type AHMA is being replaced with a operating mechanism type HMB from the current production and thus, it is being upgraded to the latest state of technology, while the existing encapsulation of the circuit breaker remains as it is.

This represents a simple and cost-effective option for partial replacement of your system.

At the same time, this also ensures a prompt and reliable supply of spare parts for sustainable plant management during the next 25-30 years.

Customer benefit
This retrofit solution is particularly meaningful if there are no expectations that the maximum switching operations of the existing switching chambers will be exceeded over the planned remaining service life.

The installation work on-site can be carried out without intruding into the gas-filled compartment, which means the switchboard can be put back into operation quickly and easily.

Your benefits at a glance
• Extending the service intervals
• Considerable reduction in maintenance costs
• Circuit breaker operating mechanism is state of the art
• Fast, cost-effective and reliable supply of spare parts from the current series production
• Requires no modifications to the system configuration
<table>
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<tr>
<th>Technical data</th>
<th>New HMB-1</th>
<th>New HMB-4</th>
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<tbody>
<tr>
<td>Oil amount</td>
<td>1.25 litres</td>
<td>1.8 litres</td>
</tr>
<tr>
<td>Switching cycle</td>
<td>O-CO</td>
<td>O-CO</td>
</tr>
<tr>
<td>Charging time according to O-CO</td>
<td>18 s</td>
<td>70 s</td>
</tr>
<tr>
<td>Service interval</td>
<td>20 years</td>
<td>20 years</td>
</tr>
</tbody>
</table>

**New circuit breaker operating mechanism type HMB-1**

**New circuit breaker operating mechanism type HMB-4**

**Existing circuit breaker operating mechanism type AHMA-1 for GIS type ELK-03**

**Existing circuit breaker operating mechanism type AHMA-4 for GIS type ELK-03**

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