

BRAKE MONITORING

Continuous monitoring of the lifting brake

+ THE GH SOLUTION: BRAKE MONITORING

- **The brake status** (released-applied) is monitored, to ensure correct synchronisation of the brake and lifting motor.
- **The lifting motor is stopped** if the brake has not been released correctly.
- **Brake pad wear is monitored**, checking its correct condition.
- **Simple solution** with no need for adjustments.
- **Easy retrofitting of hoist** to incorporate these safety functions.

+ ADVANTAGES

- / **Increased safety and durability of GH hoists.**
- Prevents motor problems when the motor is operated when the brake has not been released.
- Prevents dropping of loads due to brake contactor malfunctioning.
- Prevents risky situations by actively detecting brake pad wear.
- Single sensor solution for both functions.
- Direct measurement, avoiding interpretation errors.

+ HOW IT WORKS

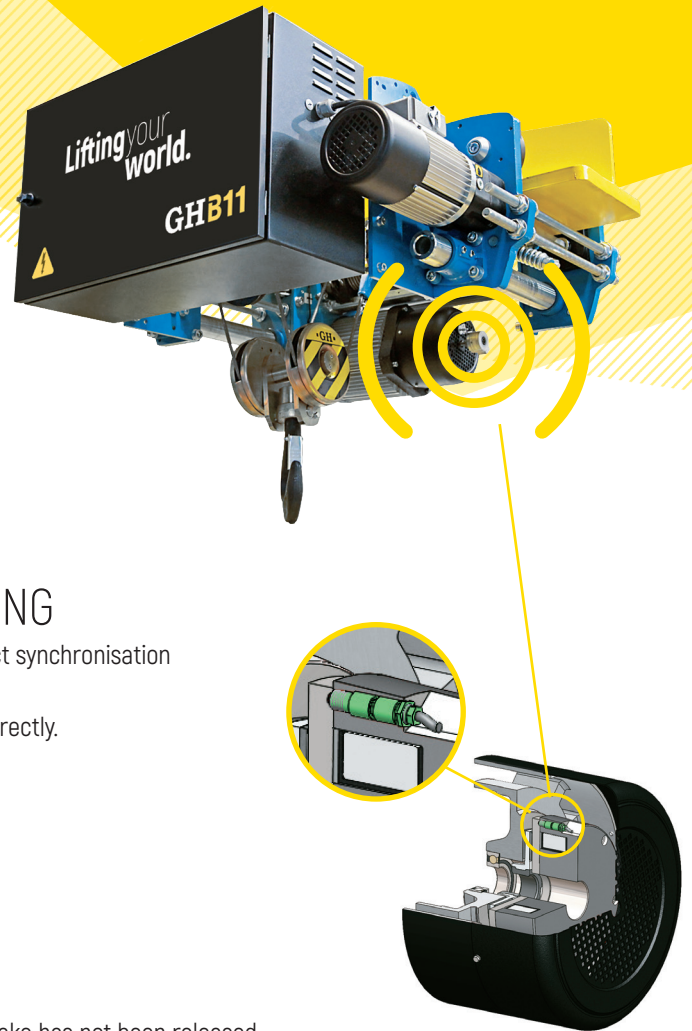
A sensor is integrated in the lifting brake, which carries out the 2 functions:

// A. Brake monitoring function

- At the start of the lifting manoeuvre, if the sensor gets no return from the brake in less than 100ms, the motor is de-energised and the manoeuvre is stopped.
- At the end of the lifting manoeuvre, if the sensor gets no return from the brake in less than 100ms, the brake is de-energised, guaranteeing the mechanical actuation of the brake.

// B. Wear monitoring function

- The thickness of the brake pad is continuously monitored.
- If the wear threshold is reached, the sensor triggers a signal, the brake is mechanically applied, and the crane is stopped.
- Optional: Brake wear warning signal. The signal activates the light corresponding to brake wear to warn the user.



TECHNICAL DETAILS

The brake release and brake pad wear monitoring functions are carried out by means of a mechanical 2-contact sensor:

- Brake status contact: brake released - brake applied.
- Brake pad status contact: brake pad OK - brake pad worn. The measurement is a direct measurement of the position of the brake pad in relation to the brake holder. The sensor is not affected by the temperature or magnetic fields. The activation - deactivation distances of all positions are fixed (factory preset), and cannot be changed.