



## Hoist / Drum: Improved operating reliability and positioning accuracy at the ladle crane

- Reliable braking when overspeed is detected
- Precise switching of hoist positions
- Configure parameters quickly and easily
- Preset shortens downtimes after rope change



Before: Hoist drum with mechanical rotary cam limit switch, but without overspeed detection. Bottom right, the new holding brake.



After: Hoist drum with U-ONE basic unit and holding brake. The photo right shows the U-ONE electronic modules in the switchboard.

### Task

Fundamentally improve the operating reliability and positioning accuracy of the ladle crane hoist used in steel production by implementing the following measures:

- Replacement of the existing mechanical cam limit switch with an electronic position switch that ensures significantly higher accuracy
- Additional implementation of an electronic overspeed switch to realize overspeed detection as well as an emergency break (not included in scope of supply of Hübner Giessen)

### The Hübner Giessen solution

Installation of the modular universal encoder system U-ONE, which offers the following special characteristics:

- Basic unit mounted directly at the hoist drum by using a double joint coupling on a tailor-made base plate construction
- Signal transmission via fiber optic cable prevents EMC problems
- The following electronic modules were installed, well-protected in the switchboard:
  - FOC decoder
  - Electronic position switch (ERC) with 6 relay outputs and preset input to facilitate plant adjustments
  - Electronic overspeed switch (EGS) with 2 relay outputs and integrated system check function

### Products

- UOM 41L, UO-EM-D41, UO-EM-ERC, UO-EM-EGS41
- Certified solid shaft assembly
- HKDS 5
- Base plate
- Engineering support