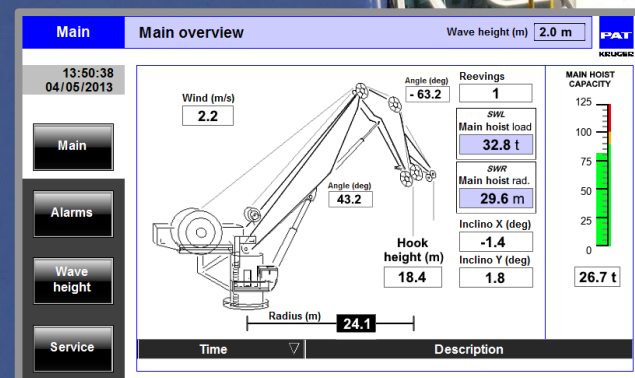


Marine Applications Knuckle Boom



About the application:

Rated capacity indicator and crane control. It suits most knuckle boom cranes with or without telescopic boom sections. Control of the crane is incorporated into the safety system.

The system compensates for trim and heel whilst determining maximum allowed load. The system has 3 different statuses:

- green is safe
- amber is last 10%
- red means overload.

If the actual load causes the vessel/barge to exceed predefined max heel and or trim settings the system will

stop unsafe movements. In this situation, the system only allows movements that decrease load, radius, trim or heel angles.

The system is equipped with a display showing the operator the actual load, permitted load, load moment, boom angles and length, total radius and vessel's heel and trim. Slave display for bridge, control room and remote control as per customer requirement.

Option is to install cameras to view the winch, (zoomed view) from boom-tip and top (bird-eye) view of the crane

showing crane and its direct surroundings.

Anti-collision to prevent damage to the crane itself and or the vessel by virtual wall and or virtual ceiling as required.

Data-logging (already compulsory on-shore in Europe) is standard.

Dedicated data-analysing software (running on standard window-pc) enables users to search for events (number of overloads, A2B contacts, average loads).

Furthermore, external forces on the crane like wind-speed sensor can be incorporated.

PAT-Krüger – Knuckle Boom

Possible options:

- Safe working radius for actual load
- Horizontal constant hook height
- Calculated A2B
- Bird-eye view camera system
- Optical zoom camera
- Data-analyser software

