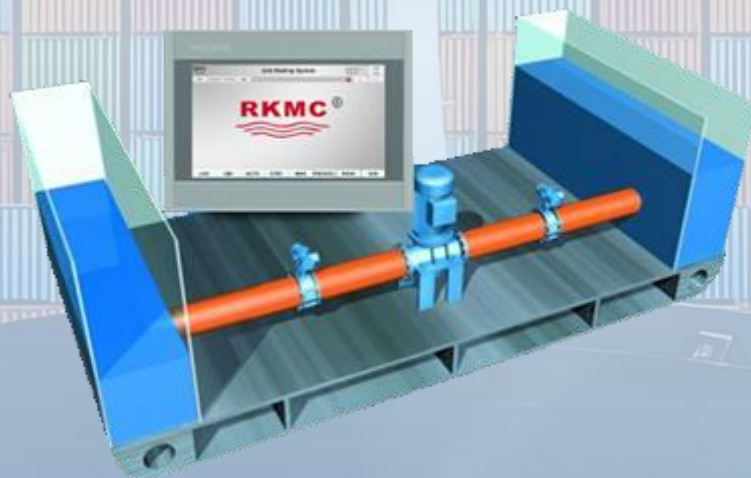




ANTI-HEELING SYSTEM

AHC100



Remote Actuator



Valve



Heeling Pump



Level switch



Inclinometer

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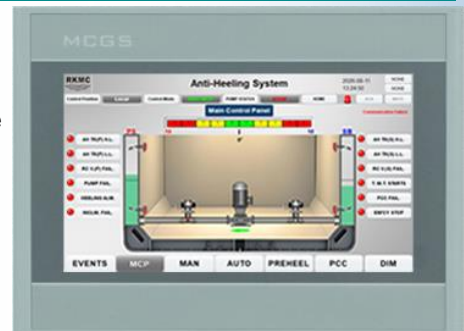
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SYSTEM

The RKMC Anti-Heeling System is designed for compensation of the ship's heel during loading/unloading operations in port and for offshore operations. The system is made for different types of container, heavy lift, offshore supply and construction vessels. The compensation is achieved by pumping ballast water between the heeling tanks, using mostly reversible propeller pumps as well as centrifugal pumps.

The PLC unit AHC with integrated 7" touch screen offers screen layouts for automatic or manual control and can be connected to the ship management system via Ethernet TCP/IP, serial RS485 interfaces. The AHC-100 system layout is ship-specific and individual tuned for various ship types. Butterfly valves are standard components, equipped with remote operated actuators.



FEATURES & FUNCTION

- Standard: reversible propeller pump
- Pump dry running protection by float switches
- Tank sensors for water level measuring
- Butterfly valves with electric or electro-hydraulic actuators
- AHC100 with self-explaining operation screens
- Frequency converter for motor soft starter
- Auto mode is for automatic control of ships list => pumps starts and valves open and close automatically if adjustable limit values are reached.
- "Preheeling" is designed to "preheel" the vessel automatically to an adjusted angle of ships list.
- PCC mode is designed for a remote control of Anti-Heeling System via PC for "PC-Operations"

TECHNICAL DATA REMOTE-CONTROLLED VALVES

- Working type Double-acting, single-acting (various types, electric and electro-hydraulic)
- Working locations Dry, temporarily or fully submerged
- Valve range DN50-DN500
- Material Aluminum, Steel, Bronze
- Emergency functions with wrench or portable hand pump





TECHNICAL DATA ANTI-HEELING PUMP

- Power consumption 26-150 kW
- Voltage 380-440V
- Frequency 50Hz/60Hz
- Flow rates (Pressure height) 200m³/h to 2300m³/h (max. 20m water column)



TECHNICAL DATA LEVEL SWITCH & LEVEL SENSOR

- Level sensor measuring range 0m – 40m
- Level sensor output signal Analog 4...20mA, or Bus signal RS485
- Level sensor degree of protection IP 68



TECHNICAL DATA INCLINOMETER

- Absolute accuracy $\leq \pm 0.5^\circ$
- Response delay ≤ 20 ms
- Resolution $\leq 0.1^\circ$
- Repetitive accuracy $\leq \pm 0.1^\circ$



TECHNICAL DATA AHC100

- Valve and pump indication and fail alarm and excessive heeling alarm
- Communication to AMS By RS 485
- High/low level alarm for each heeling tank
- Hour counting function in control system
- Inclinometer for list $\pm 10^\circ$
- AUTO control the vessel's heel within 2.0° (the angle is adjustable)
- Heeling alarm 5.0° (the angle is adjustable)
- Remote valve (P / S) Failure
- Anti-heeling TK (P / S) H / L level alarm
- Emergency stop 6.0° (the angle is adjustable)

World Service Net



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