



ANTI-HEELING

Automated heel compensation systems for improved vessel stability during loading and offshore operations

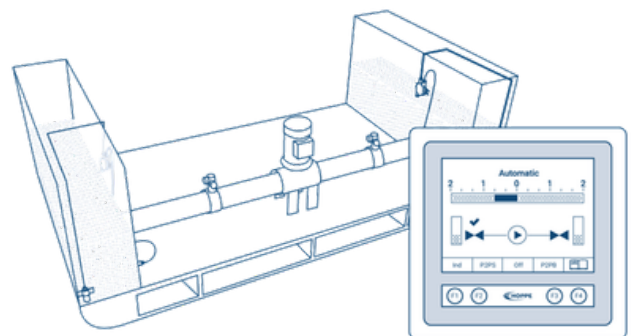
Hoppe Anti-Heeling Systems compensate static ship inclinations caused by loading operations, asymmetric load distribution or wind forces. Flexible pump and blower-based solutions ensure fast response times and reliable vessel stability across a wide range of marine applications.

Why Anti-Heeling

- Compensation of static ship inclination (heel, list, tilt) during loading operations, at asymmetric loading distributions, as well as due to wind load at sea
- Designed for different types of container, heavy lift, offshore supply and construction vessels, with special heel control on sailing ships and for wind load compensation on cruise vessels
- Heel compensation rates (degree/minute) are designed according to specific ship requirements
- Special solutions with blower unit(s) for highest flexibility, as well as fast reaction time
- Special control function for Ice-going vessels is ice-heeling operation mode

System Design

- Reversible propeller, centrifugal, screw pumps or air-blower
- Direct start, soft start or frequency controlled electric motors
- Electric pressure sensors for remote sounding of tank content or level switches
- Inertial Measurement System or inclinometer for determination of ship's heel angle
- Valve Remote Control System to control fluid flow with pneumatic, hydraulic or electro-hydraulic actuators



Blower Anti-Heeling

- Closed system consisting of one or more side tank pairs
- Blower unit(s) supply compressed air to shift water between the side tanks
- Fast reaction time for immediate counteraction against unsymmetrical loads
- High flexibility for heavy-lift and offshore loading operations
- Compensation rates of 200–1,800 tm/min per blower unit
- Parallel operation of multiple blower units for higher flow and compensation rates
- Special operation mode: “Ice-Heeling”, meaning regular heeling of the vessel to reduce friction between the ship’s hull and ice

OUR PRODUCT RANGE

Fluid & Floating

- Valve Remote Control
- Anti-Heeling
- Tank Gauging
- Flume Anti-Rolling
- Interling Anti-Rolling
- Distance Measuring
- Draught Measurement
- Electronic Inclinator
- Dynamic Draught and Floating Monitoring
- Floating Condition Control

Performance & Energy

- Emission Monitoring
- Energy Measurement
- Shaft Power Meter
- Fuel Measurement
- Energy Saving Solutions
- Crew Connect
- Performance Monitoring
- Data Collection and Acquisition

Fleet Services

- Spare Parts
- Technical Service
- Retrofit- And Upgrades
- MIoT Digitalization Upgrade

www.hoppe-marine.com

