

## Fluid Hammer Effect

What are common causes of fluid hammer?

- Rapid manual valve opening or closing. ✓
- Too high-speed settings on remotely operated valves. ✓
- Overuse of swing valves.
- Closed discharge valves.

Which type of fluid hammer is typically encountered within ballast water, cargo and engine cooling systems?

- Hydraulic shock. ✓
- Differential shock.
- Thermal shock.
- Piston shock.

How can you prevent the risk of a slug forming in compressed air systems?

- Open the inlet valve slowly. ✓
- Open the inlet valve quickly.

## What is the fluid hammer effect?

- The sudden increase in pressure inside a pipe. ✓
- The sudden decrease in pressure inside a pipe.
- The use of high-pressured water to clean inside a pipe.
- The use of high-pressure steam to clean inside a pipe.

## What are some of the possible effects of fluid hammer?

- Damage to pumps, valves and filters. ✓
- Chemical and oil cargo contamination. ✓
- Fractured pipework. ✓
- Damage to ballast water tanks.