

MAIN PROPELLER – THE KAMEWA PROPELLER CONCEPT

The characteristic of the Kamewa controllable pitch propeller is that the propeller blades can be turned about their own axis. The blade axis is perpendicular to the propeller shaft. The propeller blades can be controlled from the bridge and/or the engine room. The blades turn simultaneously by means of a hydraulic-mechanic mechanism in the propeller hub.

The angular turning range permits the blade to be steplessly set at any pitch between full power ahead and full power astern, which makes it unnecessary to reverse the rotation of the propeller shaft when going astern.

The controllable pitch of the propeller blades also means that the propeller can be set to utilize up to 100% of the propulsion power, under conditions where a fixed pitch propeller might overload the main engine. Overloading will always necessitate a reduction of engine speed and power output.

Manoeuvring

Since the controllable pitch propeller is manoeuvred by turning the propeller blades while maintaining the direction of propeller rotation, there is no need to stop the engine for reversing. This provides for speedier, more responsive manoeuvring and improve operative economy.

Changing the angle of the propeller blades results in a ratio of efficiency slightly below that of a fixed pitch propeller when going astern. However, this is more than compensated for by the advantage of maintaining engine speed and making full use of the propulsion power with a controllable pitch propeller. In an emergency for example, the stopping distance and stopping time are much shorter than with a fixed pitch propeller.