Task 6.1: Overall ship power train optimization

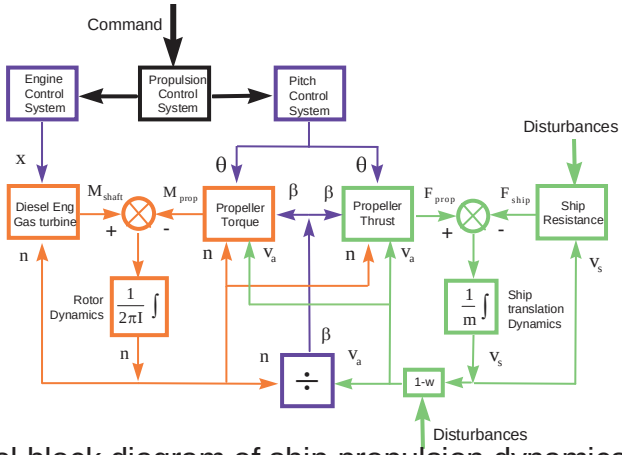
Objectives:

• Consolidate a methodology and develop an associated tool for ship propulsion power train optimal configuration and performance

• Reduce overall pollutant emission and increase propulsive efficiency

–3% by more effective operation in real live service conditions

–3% due to design optimized for real service conditions

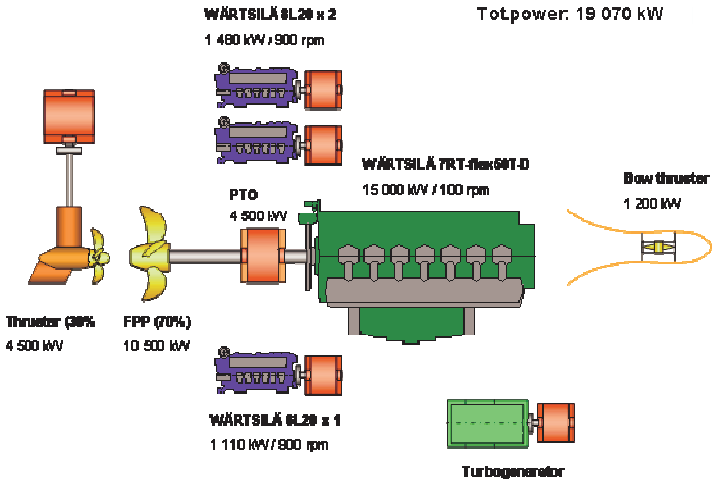


General block diagram of ship propulsion dynamics

Progress Highlights:

- Methodology and associated tool
- Description of main propulsion train component stationary and dynamic characteristics

  Including propulsion systems, engines, e-motors, gears& shafts, controllers, hull resistance and manoeuvring models.
- Tool development stationary propulsion power train
- Dynamic models of main propulsion train components



Example configuration: Pulling thruster and fixed pitch propeller in contra-rotating setup

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