Hydrodynamics - In-Service Performance

Evaluations on the influence of external factors such as hull or propeller condition (roughness and fouling) or weather conditions (wind and waves) on the in-service performance of a ship can save time and money on upgrade requirements. The BMT Hydrodynamics Team offers a full range of services for in-service ship performance to both ship owners and charterers.

Most of the world’s trade is carried by the shipping industry, making in-service ship performance a major concern. Despite the recent advances in CFD, performance prediction tools and methods in general, it is well known that vessels are often not performing as well as expected when in service.

**Progressive Speed Trials**

BMT is able to prepare, conduct and analyse the results of progressive speed trials in order to obtain a precise assessment of performance over the ship life. From this, we can compare results with the ship’s predicted performance.

**Independent Review of Shipyard Trials**

As an independent company, BMT is able to review and assess shipyards speed trials. We can also witness and provide impartial and objective analysis of speed trials.
In-Service Ship Performance

In-service performance data can be analysed and normalised to a standard condition in order to assess the ship’s performance. BMT can also evaluate the influence of external factors such as hull or propeller condition (roughness and fouling) or weather conditions (wind and waves) on in-service performance.

Speed Loss and Voyage Performance

The information obtained by both speed trials and in-service data can be collected to develop speed loss models. These models can be used to decide which route to operate the vessel on, as input to voyage planning systems and as information that can be used to develop more effective power margin policies as well as inform future ship design.