



ShipStart

Fuel Management Service for Newbuildings

ShipStart, a new service by DNV Petroleum Services, assists shipowners with fuel system design, operational procedures and fuel quality verification at the newbuilding stage.

From our experience, fuels supplied to ships on sea-trials were of unacceptable quality in some cases. These fuels caused extreme engine wear, leading to delays in delivery and generally giving the new ships a very poor start in their respective life cycles.

DNVPS was also involved in cases where lube oils for different applications onboard were contaminated at the newbuilding stage.

The fuel for a sea-trial is normally provided by the shipyard. The custody of this fuel changes upon delivery of the ship and it is used until the first bunkering. In accordance with MARPOL Annex VI Regulation 18, any fuel consumed

during a sea-trial must be documented by a bunker delivery note (BDN) and a representative MARPOL fuel sample should also be taken at delivery.

Moreover, with the introduction of Sulphur Oxide Emission Control Areas, efficient fuel change-over has become increasingly important. This can be achieved through design modifications, which are often simpler to implement at the newbuilding stage.

Most standard fuel oil system designs can also be improved to enhance fuel oil treatment as well as to facilitate fuel and lube oil system sampling in the operation phase.

Benefits of ShipStart

- ▶ Safeguards ships from the adverse effects of poor fuel quality and lube oil contamination at the newbuilding stage
- ▶ Ensures that the fuel used during the newbuilding's sea-trial complies with MARPOL Annex VI regulations
- ▶ Assists owners in enhancing the fuel system design to facilitate efficient low sulphur change-over as well as fuel oil treatment and sampling in the operation phase
- ▶ Assists owners in ensuring that sampling equipment and instructions are available onboard before the first bunkering at the newbuilding stage
- ▶ Develops ship-specific low sulphur fuel oil change-over procedures
- ▶ Provides crew with training on bunker quantity measurements and sampling procedures
- ▶ Verifies the efficiency and operation of the fuel treatment plant
- ▶ Verifies the efficiency of the fuel oil change-over procedures

Scope of Work

1. Document review:

- Review and assess newbuilding specification and plans, covering fuel tank arrangement and fuel transfer, treatment and service piping system for optimal fuel management, as well as MARPOL Annex VI low sulphur fuel oil change-over
- Develop newbuilding sampling and testing programme for fuel and lubrication oil systems, including assessment of sampling points
- Evaluate MARPOL Annex VI compliance issues such as availability of kits and line sampler, sample storage space, bunker procedures, bunker manifold arrangement and record books
- Supply sampling kits, instructions and line samplers to the ship prior to the first bunker delivery
- Develop MARPOL Annex VI low sulphur fuel oil change-over procedures, including calculations
- Verify and calculate ullage/sounding tables

2. Survey:

- Onboard verification of ullage tables (height and location of sounding/ullage pipes for bunker tanks)

- Bunker quantity survey and fuel sampling of first bunkering (selected main ports). Training of onboard crew in bunker quantity assessment and sampling procedures are included

3. Testing

- Analyse fuel and lubrication oil samples in accordance with the newbuilding testing programme
- Test samples taken from the fuel system to verify the condition and efficiency of the fuel treatment system (Fuel System Check)
- Test samples taken in the fuel system to verify the low sulphur fuel oil change-over procedures

4. Deliverables

- Fuel Quality Reports for bunkering samples
- Fuel System Check Reports
- Lubrication Oil Reports
- Technical Summary Reports covering results of all assessments, surveys and tests carried out
- MARPOL Annex VI ship-specific change-over procedures
- Bunker Quantity Survey Reports

For more information and assistance, please contact your DNVPS Customer Service Manager or the nearest DNVPS regional office.

DNVPS HQ / Singapore regional office
Phone: +65 6779 2475
Email: singapore@dnvps.com

DNVPS Oslo
Phone: +47 67 57 9900
Email: dnvps.oslo@dnv.com

DNVPS Houston
Phone: +1 281 470 1030
Email: houston@dnvps.com

DNVPS London
Phone: +44 207 357 6080
Email: london@dnvps.com

DNVPS Rotterdam
Phone: +31 10 292 2600
Email: rotterdam@dnvps.com

DNVPS Fujairah
Phone: +971 9 222 8152
Email: fujairah@dnvps.com

URL: www.dnvps.com

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