DESCRIPTION OF SMM BUNKERS SURVEY INSTRUMENT

BRIEF DESCRIPTION

With this option the user can track record of Bunker quantity measurements in every voyage as well as he can instantly re-calculate the quantities remaining on board.

In order the module to help the user to determine how much bunkers the vessel has on board, the user must measure and input the contents of the vessels’ bunkers tanks and the module will calculate the accurate quantities on every tank, taking into account the necessary ullage/sounding corrections due to vessel’s trim and list.

The program includes ship’s FO/DO Calibration Tables and Trim/Heel corrections. Once Drafts / Heel and each tank’s content details (Density/ Sound-Ullage/Temp) are available, the C/E may instantly calculate and monitor the Bunkers R.O.B..

Features of Bunkers Survey Module for vessel and office application:

- Calculation of the density of blended bunkers.
- Automatic synchronization of data between vessel and office.
- Categorization / Definition of the vessels tanks categories as HSFO, LSFO, ULSFO, MDO etc.
- Corrected Weight in Air or in Vacuum.
- Density of the Bunkers can be corrected retrospectively when Samples Analysis is available.
- Print-out tailored to your good Company’s needs
- Support for Customizable setting of the alarm contents levels for each F.O./D.O. tank, enabling the User to adjust such accordingly depending on your good Company’s Policy and Conditions.
- Automatic Calculation of the recommended Bunkers Quantities basis on the abovementioned alarm tanks level for estimating required HFO/MDO/MGO uplifts for the next bunkering call.
- Insertion of Upper Sulphur Content Limits (3.5% HSFO, 0.5%, 0.1% ULSFO/LSMGO).
- Certain colourization of program cells depending on sulphur content.
- Users’ Manual is incorporated in each Program with detailed & extensive Instructions
- Inspection Title as Drop-Down Menu.
  (on Arrival, upon Departure, After Bunkering, Before Bunkering, Free text)

Benefits of Bunkers Survey Module for vessel and office application:

- Automatic corrections for Trim/Heel/Density/Temperature.
- Instantaneous Calculations of Bunkers Weight
- Improved efficiency of operations, judgement and communication.
- Timeline of all the recorded supplied Bunkers and/or Stocktakes
- Clarity &Transparency based on official shipyard’s documentation (Sounding/Calibration Tables) endorsed by SMM (UK) Ltd. as 3rd party.
FREQUENTLY ASKED QUESTIONS

1. How the crew familiarization is achieved?
   a. Manual is incorporated in each Program with detailed & extensive Instructions
   b. Distant Training
   c. Direct Replies to Email of Masters / Chief Officers / Chief Engineers withCc to your good Company
   d. User Friendliness of Software Interface with a brief description of required actions

2. How we can we handle tiresome ISM / SMS Amendments for alignment with this SMM Product?
   a. SMM Software is tailored to your company’s policy/S.M.S. meaning minor ISM/SMS alterations.
   b. Just a quick reference to the SMM Software in place and their Manual Contents in ISM is, often, common and effective practice for the majority Shipping Companies.

3. Relative requirements of Programs (hardware, software, data exchange if any)
   a. Light, server-based application running exclusively on Windows operating system environments
   b. SMM Software can be operated by multiple users (clients) on a network
   c. Sync Mechanism requires email access or data import path for the whole fleet or a desired path for each vessel.
   d. Possible export in desired editable format, upon discussion and analysis.

SCREENSHOTS

Please see below Screenshots:
## Diesel Oil Grade B Runner Survey

**Inspecting Upon Departure**

**Voyage:** SINGAPORE – EIX  
**Port:** SINGAPORE  
**Supplier:** WORLDWIDE SUPPLIES

### Initial Survey

<table>
<thead>
<tr>
<th>Compartment</th>
<th>Full Volume (m³)</th>
<th>Measurement</th>
<th>Correct Volume (m³)</th>
<th>Volume %</th>
<th>Density Average °F</th>
<th>V.C.F.</th>
<th>W.C.F.</th>
<th>Weight in Air (MT)</th>
<th>Sulphur (ppm)</th>
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</thead>
<tbody>
<tr>
<td>M.D.O.T. 8</td>
<td>45.00</td>
<td>1.000</td>
<td>1.000</td>
<td>100.00</td>
<td>0.84</td>
<td>0.905</td>
<td>0.905</td>
<td>0.84</td>
<td>0.0895</td>
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<tr>
<td>ENO SERV TE</td>
<td>23.20</td>
<td>2.100</td>
<td>2.000</td>
<td>90.60</td>
<td>0.84</td>
<td>0.905</td>
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</table>

Total: 68.20

### Final Survey

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<tr>
<th>Compartment</th>
<th>Full Volume (m³)</th>
<th>Measurement</th>
<th>Correct Volume (m³)</th>
<th>Volume %</th>
<th>Density Average °F</th>
<th>V.C.F.</th>
<th>W.C.F.</th>
<th>Weight in Air (MT)</th>
<th>Sulphur (ppm)</th>
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<tr>
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</tbody>
</table>

Total: 68.20

### Additional Data

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<tr>
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<td>100.90</td>
<td>23.20</td>
</tr>
</tbody>
</table>

### Sulphur Limit

**High:** 0 % by m³  
**Low:** 0 % by m³

### Remarks

**MASTER/VESSEL'S SIGNATURE**  
**CHIEF ENGINEER'S SIGNATURE**

**MULTILOAD**
WE CAN SAIL TOGETHER.....

S.A. Malliaroudakis Maritime (UK) Ltd.
UK Office: 1, Portulacea Gardens · High Snod Wood · TN25 4DS · Challock, Ashford, Kent · U.K. · Tel: +44 (0) 1233 742673
GR Office: 41, Agiou Dimitriou Str. · 185 46 · Piraeus · Greece · Tel.: +30 210 45 10000 · Fax: + 30 210 46 10333
Web: www.smmnet.com · Email: info@smmnet.co.uk , sales@smmnet.co.uk