Confirmation of Compliance

This is to confirm that the undernoted product has been tested in accordance with the relevant requirements of MEPC.184(59) and MEPC.259(68) as well as Revised MARPOL Annex VI and NOx Technical Code 2008 in respect of a continuous monitoring system of SOx and CO2 emissions.

Uras26
used in AO2000 and EL3000 series

Company
ABB Automation GmbH
Stierstädtner Straße 5
60488 Frankfurt am Main
Germany

Product Description
Exhaust Gas Analyzer

Type
Uras26
Variants MarID 3500 / MarID 3355

Range of Application:
The "Uras26" is found to be in compliance with the requirements of MEPC.184(59) and MEPC.259(68), Chapter 6 "Emission Testing" as well as with relevant requirements of Revised MARPOL Annex VI and NOx Technical Code 2008.

The exhaust gas analyzer "Uras26" is found to be suitable as a component of a continuous monitoring system of SOx emission.

The "Uras26" meets the following requirements:
- Principle of detection (MEPC.184(59) and MEPC.259(68), 6.2)
- Accuracy (NTC 2008, Appendix III, 1.6)
- Precision (NTC 2008, Appendix III, 1.7)
- Noise (NTC 2008, Appendix III, 1.8)
- Zero and span drift (NTC 2008, Appendix III, 1.9 and 1.10)
- Calibration curve (NTC 2008, Appendix IV, 5.5.1)
- Interference effect (NTC 2008, Appendix IV, 9)

This is to Note

1. In order to completely fulfil the requirements of MEPC.184(59) and MEPC.259(68) for "Continuous Emission Monitoring", additional equipment (e.g. sample probe, sampling tubes, gas dryer, data recording) will have to be installed. Requirements of MEPC.184(59) and MEPC.259(68), chapter 6.6 and 6.7 regarding SO2 losses have to be observed.

2. In case ambient temperature is above 45°C "Uras26" may only be operated in an air conditioned cabinet.

3. The "Uras26" shall be installed, calibrated and operated in compliance with the manufacturer’s instructions.

4. The calibration interval could be prolonged up to one year without exceeding the zero and span drift according NTC 2008, Appendix III, 1.9 and 1.10, if the daily automatic zero point and span check with internal calibration cells is carried out.

No.: 30652-15 HH
Issued at Hamburg, 2015-11-27 / Rev. 1
Page 1 of 2

Siline Mundal
Claus Kurok
Confirmation of Compliance

Technical Data

<table>
<thead>
<tr>
<th>Component</th>
<th>Sensor type</th>
<th>Smallest range</th>
<th>Highest range</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO₂</td>
<td>NDIR</td>
<td>0-250 vpm</td>
<td>0-500 vpm</td>
</tr>
<tr>
<td>CO₂</td>
<td>NDIR</td>
<td>0-20 vol.-%</td>
<td></td>
</tr>
</tbody>
</table>

Documents:

Test report:
"Report on the testing of the Uras26 infrared photometer for use in the measurement of exhaust emissions from marine diesel engines in accordance with MEPC.184(59)"

Remark

The compliance with relevant requirements of the DNV GL Type Approval System has not been tested.