



DET NORSKE VERITAS

Certificate No  
**OSL-11-4644**

PRODUCT CERTIFICATE

Manufacturer:	<b>SKIPPER Electronics AS</b>
Manufacturer's order No.:	<b>81417</b>
Purchaser:	<b>RAYTHEON</b>
Purchaser's order No.:	
The product is intended for	
Yard:	<b>( TBD )</b>
Yard No.:	
Name of vessel:	<b>" "</b>
DNV Id. No.:	<b>P261.1C</b>
THIS IS TO CERTIFY:	
that the product:	<b>Bottom Penetration for Echo Sounder, Sonar or Log</b>
Type designation:	<b>SB-60-SA_X_, DB-60-SA_, SB-100-SB_, DB-100-SB_, ETNSJB/ETNSLB-100mm_</b>
Intended purpose:	<b>The gate valve may be used in conjunction with installation of speed log or echo sounder</b>
Serial No(s):	<b>11344</b>
Has been built and tested in accordance with the relevant requirements of:	
DNV Rules for Classification:	<input checked="" type="checkbox"/> Ships <input checked="" type="checkbox"/> HSLC <input type="checkbox"/> Naval <input checked="" type="checkbox"/> Offshore
	<input type="checkbox"/> Other standards:

Remarks (if more than one line, use page 2):

The product was marked: **NV-OSL-11-4644**

On: **Gate Valve**

This field is only to be filled in when the certification is based on a Manufacturing Survey Arrangement (MSA).

The undersigned manufacturer declares that the product/system has been built and tested in accordance with the specification/standard stated above and the conditions referred to in

Manufacturing Survey Arrangement No: **R-1948**

Quality System Certificate No: **TI 151 ISO 9001:2008**

For Manufacturer:

Place: **Oslo**

Date: **03.02.2012**

**Anders Karlstad**  
Product Technician

This Certificate is only valid when signed by a DNV surveyor.

For **Det Norske Veritas AS**

Place: **Høvik**

Date: **2012-05-03**

**Thomas R. Jacobsen**  
Senior Surveyor

Technical data:

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Remarks:

**The valve housing has been subjected to a hydrostatic pressure test, and the valve assembly to a seat leakage test to 5 bar. Holding time 5 minutes.**

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Marking and certificate numbers for the different parts:

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Drawings with dates of approval and/or type approval certificate number:

**DNV S-6000**

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