

## DET NORSKE VERITAS

## PRODUCT CERTIFICATE

| Purchaser's order No.:   | ine Co., Ltd Kyeong-Do KOREA  |
|--|---|
| Purchaser's order No.:   |   |
| The product is intended for<br>Yard: (TBD)<br>Yard No.:<br>Name of vessel: ""  |   |
| Yard: (TBD)<br>Yard No.:<br>Name of vessel: ""   |   |
| Yard No.:  |   |
| Name of vessel: ""   |   |
| Name of vessel:  |   |
| DNV Id. No.: <b>P261.1C</b>  |   |
|  |   |
| THIS IS TO CERTIFY:  |   |
| that the product: Bottom F   | Penetration for Echo Sounder, Sonar or Log                            |
| SB-60-S  | A, DB-60-SA, SB-100-SB_X_, DB100-SB,                                  |
| Type designation: ETNSJB/  | ETNSLB-100mm<br>valve may be used in conjunction with installation of |
| Intended purpose: speed log  | g or echo sounder   |
| Serial No(s): 11161  |   |
| Has been built and tested in accordance with the relevant require  | ments of:   |
| DNV Rules for Classification: Ships HSLC   | C 🗌 Naval 🛛 Offshore  |
| □ Other standards:   |   |
| Remarks (if more than one line, use page 2):<br>The product was marked: <b>NV-OSL-11-4461</b> O  | m: GATE VALVE   |
| This field is only to be filled in when the certification is based on a Manufacturing Survey Arrangement (MSA).  | This Certificate is only valid when signed by a DNV surveyor.         |
| The undersigned manufacturer declares that the product/system has<br>been built and tested in accordance with the specification/standard<br>stated above and the conditions referred to in<br>Manufacturing Survey Arrangement No: <b>R-1948</b><br>Quality System Certificate No: <b>TI 151 ISO 9001:2008</b> |   |
| For Manufacturer:  | For Det Norske Veritas AS   |
| Place: Oslo  | Place: <b>Høvik</b>   |
| Date: 13.05.2011   | Date: 2011-06-07  |
|  |   |
| Anders Karlstad  | Thomas R. Jacobsen  |
| (title)  | Surveyor  |

Technical data:

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.

Marking and certificate numbers for the different parts:

Drawings with dates of approval and/or type approval certificate number:  $\ensuremath{\text{DNV}}$  S-6000