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Your reference	Your letter of	Our reference	Extension	Date
		CHRMYP/15-069592	+49 40 36149-7322	2016-01-27

### EC Certificates for Heading Control System (HCS)

Dear Sir or Madam,

Please find attached the EC Type Examination Certificates and EC Certificate of Conformity MED 12578-10 HH and 12579-10 HH for the above mentioned equipment.

Please note that the reports of the QMS audits periodically carried out are to be submitted to DNV GL Hamburg in due time.

Before the equipment is placed on the market you have to affix the mark of conformity (wheel mark) to each product and draw up a written declaration of conformity. The mark shall be followed by our identification number 0098 and by the last two digits of the number of the year in which the mark is affixed, e.g. 0098-xx.

The declaration of conformity shall contain the following:

- description of the equipment to which it refers,
- reference to the specifications under which conformity is declared,
- identification of the signatory empowered to bind the manufacturer,
- reference to the EC type-examination certificate issued as above.

Please inform us about any modification of the equipment. Depending on the kind and extent of the modification a re-examination of the equipment may be necessary.

The statement of fees will be sent to you by separate mail.

Should you have any questions concerning the service please do not hesitate to contact us.

Yours faithfully,

for DNV GL SE



Christine Mydlak-Röder

NB: All products certified in accordance with MED are listed on MarED webpage <http://www.mared.org/>

**DNV GL SE, Registered Office Hamburg No. HRB 115442 • Chairman of the Supervisory Board:** Henrik O. Madsen •  
**Executive Board:** Knut Ørbeck-Nilssen • Torsten Schramm • Björn-Olaf Borth  
The latest edition of the General Terms and Conditions of DNV GL SE is applicable.

# EC CERTIFICATE TYPE EXAMINATION (MODULE B)

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This is to certify that:

DNV GL SE, a Notified Body under the terms of the Marine Equipment Directive 96/98/EC of 20 December 1996, notified by the German Federal Ministry of Transport, Building and Urban Development, did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the requirements of Marine Equipment Directive (MED) 96/98/EC as amended, subject to any conditions in the schedule attached hereto.

Certificate No.	<b>12 578 - 10 HH</b>
Applicant	<b>Beijing Highlander Digital Technology Co., Ltd.</b> <b>Tsinghua Science Park C 1902, Haidian District</b> <b>100084 Beijing, P.R. CHINA</b>
Manufacturer	<b>Beijing Highlander Digital Technology Co., Ltd</b> <b>Qingfeng Road 199, Sutong Sci&amp;Tech Park</b> <b>Nantong, CHINA</b>
Product Description	<b>Heading Control System (HCS)</b>
Product Name	<b>HLD-SC200</b>
Trade Name	<b>HLD-SC200</b>
Specified Standards	<b>-IMO Resolutions A.342 (IX), A.694 (17), MSC.64(67) Annex 3,</b> <b>MSC.191(79)</b> <b>-ISO 11674 (2006) , IEC 61162-1(Ed.4), IEC 60945 (2002) incl.</b> <b>Corr.1 (2008), IEC62288(2014)</b>
Related Directive	<b>2014/93/EU</b>
Equipment Section	<b>Navigation equipment</b>
Annex A.1 Item No.	<b>A.1/4.16</b>
Date of Re-issue	<b>2016-01-25</b>
Expiry Date	<b>2020-12-20</b>

**DNV GL SE**

**Notified Body No.: 0098**



  
**Christine Mydlak-Röder**

Certificate No: 12 578 - 10 HH

Date of Re-issue: 2016-01-25

## Schedule of Approval

### Approval Documentation

Test report : HLD-SC200 GL Test (7 November 2010), A10-024-ZC-01, HLD121223

### Technical Data

The PID-controlled heading control system HLD-SC200 consists of the following equipment necessary for functioning:

Operation Unit:	P/N: 0501001A0
Automatic Control Unit:	P/N: 0501011A0
Steering Interface Unit:	P/N: 0501013A0
Rudder Feedback Unit:	P/N: 0505000A0
With Lever Drive System	P/N: 0503000A0
Power Supply Unit:	P/N: 0501016A0

Optional equipment:	
Steering Mode Switch:	P/N: 0501002A0
Alarm Control Unit:	P/N: 0501012A0
Alarm Display Unit:	P/N: 0501005A0
Extended Alarm Display Panel:	P/N: 0501009A0

#### Additional equipment

For a complete steering gear control system the following components may be used:

Follow-Up Unit:	P/N: 0501003A0
Non-Follow-Up Unit:	P/N: 0501010A0
Steering Interface Unit:	P/N: 0501013A0
Override Unit:	P/N: 0501007A0
Relay:	P/N: 0501014A0
Wing Non-Follow-Up Unit:	P/N: 0502000A0
Connection Terminals:	P/N: 0501015A0
Rudder Pump System Switch:	P/N: 0501004A0
Local/Bridge Steering Switch:	P/N: 0504000A0
Steering Repeater Compass:	P/N: 0501008A0

To be used with compasses providing data in compliance with IEC 61162-1 and IEC 61162-2

Documentation:	
Installation Manual:	HLD0500AZ V1.x
Operation Manual:	HLD0500SS2 V1.x
Service Manual:	HLD0500WC V1.x

### Remarks

None

### Notes:

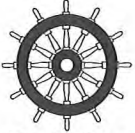
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE, as the Notified Body, of any modifications or changes to the approved equipment.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

An U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed

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by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th 2004.



The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body.

**Limitations on the acceptance or use of the product**

none

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