

# TYPE APPROVAL CERTIFICATE

## This is to certify:

### That the Hook

with type designation(s)  
**HH000158 HTH 2,5**

Issued to

**H. Henriksen AS**  
**TØNSBERG, Norway**

is found to comply with  
**DNV GL standard DNVGL-ST-0378 – Standard for offshore and platform lifting appliances**

## Application :

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**

Issued at **Høvik** on **2017-03-14**

for **DNV GL**

This Certificate is valid until **2022-03-13**.

DNV GL local station: **Sandefjord**

Approval Engineer: **Chi Wan Bang**

**Aldo Matteucci**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



## Product description

Equipment type: HH000158 HTH 2,5 Henriksen Towing Hook with quick release  
Categorization: offshore  
Design dynamic factor (DAF): 1,3  
Maximum Safe working load (SWL): 2,5 tonnes  
Design temperature: -20 degrees Celsius  
Operating condition: 0-45 degree upwards relative to the horizontal plane

## Application/Limitation

- The towing hook is approved as loose gear according to the aforementioned standard.
- Support and connection to the deck structure are not covered by this approval.
- All materials for load-carrying parts are to be delivered with 3.1 certificates (EN 10204:2004), documenting mechanical properties and chemical composition in accordance with the type approval documentation, and shall comply with Sec.3 from the aforementioned standard.

## Type Approval documentation

<b>Drawing No.</b>	<b>Rev.</b>	<b>Title</b>	<b>Status</b>
D000891	15	Engineering Note: Design criteria - Henriksen Painter and Towing Hooks (HPH and HTH series)	For information
D001191	3	System Segment Design Description: 15-4476 Henriksen Tow Hook	For information
D001347		Datasheet - Nastran material bilinear data (ID 4183)	For information
D001509	8	Engineering Report: HTH 2,5T FEM Analysis	For information
D000876	4	First Article Acceptance Test: 15-4476 HTH - Henriksen Towing Hook	For information
HH000158	1	HTH 2,5 Henriksen Towing Hook	For information
HH000158	CD	HTH 2,5 Henriksen Towing Hook	For information
HH010022	1	Main Hook Element HTH 2,5	Type approved
HH020080	A	Sideplate HTH 2,5	Type approved
HH020081	A	Sideplate HTH 2,5	Type approved
HH040148	2	Main bolt HTH 2,5 Ø25ø20	Type approved
HH040151	1	Release bolt HTH 2,5	Type approved
HH110445	--	Main hook stem HTH 2,5	Type approved
M000308	A	User Manual - HTH (ID 3836)	For information


## Tests carried out

First Article Acceptance Test (document number:D000876, Version:4) was carried out on 2016-10-17 and witnessed by DNVGL Sandefjord station with Verification Statement No.:N141BBVY.

In order to obtain a DNVGL Product Certificate, testing is to be carried out according to Sec.14 from the aforementioned standard.

## Marking of product

Each towing hook shall be marked according to Sec.12 from the aforementioned standard.



Job Id: **262.1-025139-1**  
Certificate No: **TAS00000YK**

### **Periodical assessment**

For retention of the Type Approval, a DNV GL surveyor shall perform a survey every second year and before expire date of this certificate to verify that the conditions for the type approval are complied with.

**END OF CERTIFICATE**