



# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMT0000099**  
Revision No:  
**3**

This is to certify:

That the Manufacturer

**Hydynamic Holland B.V.**  
**Enschede, Netherlands**

is approved for the  
**Assembling of type approved hoses and couplings**

The approval is granted on condition that  
**DNV GL class programme DNVGL-CP-0183 – Type approval – Flexible hoses**

are complied with in all respect

Hose	Size
<b>GH681</b>	<b>DN5, 6, 8, 10, 12, 16, 19, 25, 31, 51</b>
<b>GH663</b>	<b>DN6, 8, 10, 12, 16, 19, 25, 31</b>
<b>GH506</b>	<b>DN19, 25, 31, 38, 51</b>
<b>GH793</b>	<b>DN6, 8, 10, 12, 16, 19, 25, 31, 38</b>
<b>GH781</b>	<b>DN6, 8, 10, 12, 16, 19, 25, 31, 38</b>
<b>EC881</b>	<b>DN6, 8, 10, 12, 16, 19, 31, 51</b>

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV GL, DNV and GL rules.

Issued at **Høvik** on **2021-04-19**

for **DNV**

This Certificate is valid until **2024-04-18**.

DNV local station: **Netherlands CMC**

Approval Engineer: **Andreas Hansen**

**Zeinab Sharifi**  
**Head of Section**

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

This Certificate is subject to terms and conditions overleaf. Any significant change in production facilities and methods may render this Certificate invalid.



## Approval basis

Hydynamic Holland B.V. is approved as a hose assembling company to deliver type approved hose assemblies (hose and coupling types as described in this certificate) to DNV vessels.

## Products

Holder of this certificate is authorized to assemble hoses and end fittings as specified in below type approval certificates with subsequent identical revisions (as long as there is no change in the design of the products):

<u>Certificate</u>	<u>Type</u>	<u>Holder</u>	<u>Expiry date</u>
TAP0000116	GH681	Eaton Germany GmbH	2022-07-18
TAP00000GD	GH663	Eaton Germany GmbH	2021-09-05
TAP00000DN	GH506	Eaton Germany GmbH	2021-09-05
TAP000016W	EC881	Eaton Germany GmbH	2023-03-13
TAP00000DM	GH781, GH793	Eaton Germany GmbH	2021-09-04

## Limitation

The approval is valid by considering all conditions in authorization letter and type approval certificates during the validity of current certificate and relevant type approval certificates.

## Production testing

Each hose assembly is to be hydraulic pressure tested to 1.5 times the maximum working pressure before delivery and to be delivered from the certificate holder with pressure test report with reference to the type approval certificate and this certificate.

## Approval documentation

Quality plan: making of hose assemblies with DNV-GL approval  
 Machine catalogue EA116  
 Aeroquip MatchMate Plus EA063D  
 Eaton Aeroquip, Preferred Die Cage Decal Instruction Sheet  
 Voorschriften tbv productcodering bij slangassemblage (Work instructions hose assembly)  
 AGN6000 documents:  
 GH435 rev. A, GA512 rev. C, FC555 rev. D, FC364 rev. B, FC363 rev. B, FC 325 rev. A, FC323 rev. C, 2807 rev. E, 2755B rev. -, 2755 rev. B,  
 Hochdruckhydraulikkupplung GA90090  
 Test bench Hydynamic Holland B.V.  
 ISO 9001 certificate no. 185820-2015-AQ-NLD-RvA  
 A/C Aluminium Löt Kit +  
 Hose and reusable fittings EA001J  
 Hose and fittings (product catalogue)  
 Advantage Hose Products (product catalogue)  
 Global Spiral (product catalogue)  
 Global products EA005J (product catalogue)  
 Fluid Conveyance Products EMEA  
 Walterscheid WALRing tube connection system  
 STC® Connectors EA104  
 Eaton Aeroquip Crimp fittings  
 MM2 Montagemaschine  
 Assembly instructions  
 ET1280, die wirtschaftliche und flexible Pressmaschine  
 Authorization letter from Eaton, dated 2018-08-10  
 Burst pressure tests witnessed by DNV GL 2018-03-28 and 2018-05-14  
 List of designated persons responsible for hose assembling dated 2018-08-17  
 Burst pressure test witnessed by DNV GL 2019-10-31

## Certificate Retention Survey

The AoM certificate is valid for three years with no intermediate assessment unless otherwise requested by the Society.