

DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. S-4982
This Certificate consists of 3 pages

This is to certify that the
Sacrificial Anode for Corrosion Protection

with type designation(s)
IMPALLOY III

Manufactured by
Impalloy Limited
Walsall, West Midlands WS3 2XN, United Kingdom

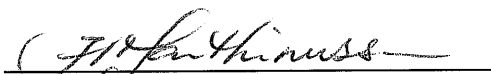
is found to comply with
Det Norske Veritas' Type Approval Programme 1-601.2, 2000, Sacrificial Anode Materials
DNV's Recommended Practice B401.

Application
Approval is given for use of the sacrificial anode material in seawater below 30°C. The approval is given for the sacrificial anode material and not for anode design.

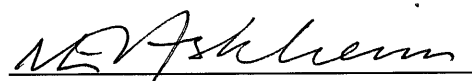


Place and date
Høvik, 2007-06-21
for DET NORSKE VERITAS AS

This Certificate is valid until
2011-06-30

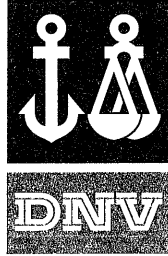

Hanne Anita Hjerpetjønn
Head of Section

Local Office
DNV Sheffield


Erik Askheim
Surveyor

Notice: 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.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



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Product description

Sacrificial anode material **IMPALLOY III**.

Al-Zn-In alloy with current capacity of about 2580 Ah/kg and a closed circuit potential of about -1110 mV versus Ag/AgCl/seawater reference electrode.

Application/Limitation

Approval is given for use of the sacrificial anode material in seawater below 30°C.

Type Approval documentation

1. Previous Type Approval Certificate No. S-3781.
2. Letter from DNV Sheffield of 2007-06-14, including Survey Report dated 2007-06-13.
3. E-mail correspondence with DNV Sheffield, March-April 2007.

Tests carried out

Type Testing as per **Type Approval documentation**, including 12 months testing carried out at DNV Industry, Bergen, ref. Report No. 795057, dated 7 April 1995. Originally tested in accordance with DNV-RP-B401, 1993 revision. Mandatory requirements in the January 2005 revision of RP-B401 are, however, complied with.

Marking of product

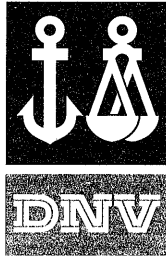
For traceability to this Type Approval Certificate, the products are to be marked: **Impalloy** with cast number, where "X" in the cast number denotes **Impalloy III**.

Certificate Retention/Renewal Survey

The scope of the Retention/Renewal Survey is to verify that the conditions stipulated for the Type Approval is complied with and that no alterations are made to the product design or choice of materials.

Survey to be performed after two (2) years (Certificate Retention Survey) and at renewal after four (4) years (Certificate Renewal Survey).

The main elements of the survey are:



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- Ensure that **Type Approval documentation** is available.
- Review: design, materials, production process, and performance with respect to possible changes, in order to ensure compliance with **Type Approval documentation** and/or referenced material specifications.
- Ensure traceability between manufacturer's product marking and the DNV Type Approval Certificate.

END OF CERTIFICATE