

DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **E-10699**

Holder of Certificate
EXIDE TECHNOLOGIES, SAS
Gennevilliers Cedex, France

This is to certify that the
Battery (Accumulator)

with type designation(s)
MARINE & MULTIFIT, Start AGM (EM) and Dual AGM (EP) series

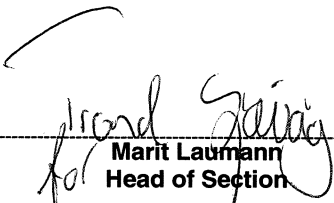
is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application
Lead-Acid batteries for use in ship and offshore Units.

Høvik, 2011-01-17
for Det Norske Veritas AS



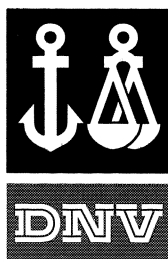
This Certificate is valid until
2015-06-30


Marit Laumann
Head of Section

DNV local office:
Madrid


Sverre Eriksen
Surveyor

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.



Certificate No.: E-10699
File No.: 822.40
Job Id.: 262.1-008822-1

Product description

Valve Regulated Lead-Acid batteries for engine start and dual supply. AGM technology.

Product Code	20h Capacity (Ah)	CCA-EN (A)	Voltage (V)
EM900	42	700	12
EM1000	50	800	12
EM1100	100	925	12
EP450	50	750	12
EP900	100	720	12
EP1200	140	700	12
EP1500	180	900	12
EP2100	240	1200	12

Manufactured by

EXIDE Technologies
Acebo, s/n – Pol.Empresarium
E-50720 La Cartuja Baja Zaragoza
Spain

EXIDE Technologies
3639 Joy Road
Columbus, GA 31906
United States

EXIDE Technologies partner LEOCH BATTERY Corp.
Jinhu Industry Zone,
Huai an city, Jiangsu
China

Application/Limitation

Batteries for use in ships and offshore Units. To be installed as described for valve regulated batteries in the DNV rules.

Type Approval documentation

Datasheet:

EM900 (11/06/2010), EM1000 (11/06/2010), EM1100 (11/06/2010), EP450 (28/10/2008), EP900 (11/06/2010), EP1200 (08/06/2010), EP1500 (08/06/2010), EP2100 (08/06/2010),

Test reports

ML Product Certification with DNV ORBITAL GR34 & GR86 (16/12/2010)

Leoch Battery Testreport (23/12/2010)

Tests carried out

Capacity (EN 50342), Cold Cranking (EN 50342), Short Circuit (IEC 60896-21), Recharge Behaviour (IEC 60896-21), High Current Tolerance (IEC 60896-21) and Vibration Resistance (EN 50342, V3).

Marking of product

EXIDE MARINE & MULTIFIT – Product Code – Capacity (Ah) – CCA (A)

Certificate Retention 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.

The main elements of the survey are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Survey to be performed at least every second year.

END OF CERTIFICATE