

SKIPPER Electronics AS
Enebakkveien 150
P.O.Box 151, Manglerud
0612 Oslo, Norway

Telephone: +47 23 30 22 70
Telefax: +47 23 30 22 71
E-mail: skipper@skipper.no
Co.reg.no.: NO-965378847 MVA

SKIPPER

www.skipper.no

Statement of Conformity

Ice plates and Echosounder transducers.

Parts under test:

- Ice plate of type TC-2006 as mounted in ETNARCPL
- ETS50200SX-SA 50-200 kHz transducer
- DL2 sensor (front part)

The above parts have been tested at an authorized test house (KiWA) to verify that they will tolerate pressure levels required to use on ice class vessels.

The parts were tested and with a constant pressure over the whole sensor and were found to work above the following pressures.

Part number	Working at >4Mpa >4000 kN/m ²	Working at >11Mpa >11000 kN/m ²	Point of no return
TC-2006	Pass	Pass	>50Mpa
ETS50200	Pass	Pass	>20Mpa
DL2	Pass	Fail	>8MAa

* BV set limits for ice class bottom mounting to >3755 kN/m², and side mounting to 10198 kN/m²

Conclusion

The ETS50200 and DL2 can be used instead of ice protection, as long as they are flush to the hull.

SKIPPER recommends the use of ice guards where possible to reduce the risk of impact of sharp objects, which are not tested in these tests.

Oslo 14.01.2020



Anne-Karin Bjerkestrand

Quality Manager

SKIPPER Electronics AS