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Subject

Naval shock testing of a DAMPA ceiling panel system

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To whom it may concern,

Date
17 July 2026

I confirm that the following Naval Shock Tests have been undertaken:

- Customer: DAMPA ApS
Højeløkkevej 4a
DK 5690 Tommerup
Denmark.
- Tested items: **DAMPA ceiling panel system.**
- Test date: Week 25, 2026.
- Test location: TNO Structural Dynamics lab, Pieter Calandweg 15,
2628CP Delft, The Netherlands.
- Shock input: **BV0230 / D5050-0623 (2017); Frigate, Float, Shock Zone II;
Shock Class B.**

Shock tests were done in three mutually perpendicular directions. During testing, to obtain a correct mass loading, a loose layer of Rockwool was placed on top of the ceiling panels.

Main conclusions

- For all tests, the applied shock fully satisfied the **Float requirements for Shock Zone II**, according to the qualification criteria from BV0230 / D5050-0623.
- During the test in the Vertical shock direction, parts of the Rockwool shifted. However, this was expected as it was only there to provide mass loading and was not secured to the ceiling panels. Furthermore, the central rods of the assembly were deformed during this test. Finally, while the ceiling panels were deformed, all remained locally captive. Thus, according to **Shock Class B**, as the assembly posed no negative consequences to the ship or personnel, this test was deemed a pass.
- During the tests in the Horizontal 1 and Horizontal 2 shock directions, the ceiling panels were deformed slightly more but remained locally captive.

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- After all tests, the Rockwool was removed and the ceiling panels inspected. As detailed above, all panels were found to be locally captive and it was concluded that the deformations of the panels had no negative consequences to the ship or personnel. Thus, according to **Shock Class B**, the shock tests were deemed a pass..

Yours faithfully,

A handwritten signature in dark ink, appearing to be 'K. Green', written over a horizontal line.

Kirk Green, PhD
Shock Team Leader
Senior Consultant
TNO Naval & Offshore Structures