



CUSTOMER

Celebrity Cruises
(a subsidiary of Royal Caribbean Cruises Ltd)

BACKGROUND

Four sister ships built by French shipyard Chantiers de L'Atlantique – Millennium, Infinity, Summit and Constellation – were each fitted with a propeller shaft brake on azimuthing electric propulsion units, which is used to stop and hold the propeller.

Ship specifications:

- Length 294 m (321.5 yd)
- Propulsion power 39 MW (52,300 hp)
- Max speed 24 knots
- Maximum number of persons on board including the crew: 3,450

APPLICATION

The brake system for each ship consists of two Dellner SKD 4x100 pressure applied disc brakes with a custom designed support, working on two 1,527 mm (60 in) diameter brake discs.

The brake system also includes a mechanical locking device unit on each propeller shaft.

Up to 200 bar (2,900 psi) of hydraulic pressure for engaging the brake is generated through a turnkey powerpack, which includes an electrical connection box insulated in a protecting cabinet.

The brake system can provide up to 166 kNm (1,469,200 lbf-in) of brake torque.