CASE STORY
RMS QUEEN MARY 2

CUSTOMER
Cunard Lines Ltd

BACKGROUND
Cunard’s flagship RMS Queen Mary 2 is one of the world’s largest and most luxurious passenger liners.

Built at the Chantiers de L’Atlantique Shipyard in St. Nazaire, France, RMS Queen Mary 2 is 345 m (1,132 ft) long, 41.1 m (135 ft) wide, 72 m (236 ft) tall and weighs in at 150,000 gross tons. She can accommodate 2,620 passengers and 1,253 crew.


APPLICATION
The propulsion system on RMS Queen Mary 2 consists of two General Electric Marine gas turbine engines delivering a total of 86 MW of power to four 21.5 MW Rolls-Royce Mermaid pods for a maximum speed of 29.3 knots. Two of the pods are fixed and two are azimuthing for steering and manoeuvring.

The ship was the first to have a four pod installation and each pod is fitted with a Dellner SKD 100 hydraulic pressure applied brake working on a ø1300 mm (51.18 in) brake disc to deliver braking torque of up to 290 kNm (213,900 lbf-ft).

Each Mermaid pod also has a Dellner Brakes mechanical locking mechanism that locks the propeller shaft in position after the brakes have been applied, so there is no shaft or propeller rotation.