CASE STORY
CRUISE LINER QUEEN MARY 2

CUSTOMER

Cunard Lines Ltd.

BACKGROUND

The luxurious Queen Mary 2 is the largest (150,000 gross tons), the longest (345 m - 1132 ft), widest (41.1 m - 135 ft) and tallest (72 m - 236 ft) passenger ship ever built. The propulsion system consists of two General Electric Marine gas turbine engines delivering a total of 86 MW of power to four Rolls-Royce Mermaid Pods - 21.5 MW each - for a maximum speed of 29.3 knots. Two of the pods are fixed and two are azimuthing for steering and manoeuvring. The ship is the first four pod installation.

The Queen Mary 2 was built at the Chantiers de L'Atlantique Shipyard in St. Nazaire, France and can accommodate 2,620 passengers and 1253 crew. The first cruise went from Southampton, England, January 2004.

APPLICATION

The propulsion brake systems on Queen Mary 2 consists of four Dellner model SKD 100 hydraulic pressure applied brakes working on a brake disc ø1300 mm (51.18 in). Each Mermaid Pod uses this system, which also have a mechanical device that locks the propeller shaft after the brakes are set and there is no rotation. Braking torque is up to 290 kNm (213,900 lbf-ft).

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