



## CUSTOMER

Waxholms Ångfartygs AB, Sweden

## BACKGROUND

Five passenger ferries were delivered between 1990 and 1993, and continue to operate in the Stockholm archipelago in Sweden.

Each ferry is powered by three 600 kW (805 hp) MAN diesel engines and three propeller shafts. During their daily routes, the ferries perform many docking manoeuvres, all of which require numerous propeller shaft rotation reversals.

Originally, the vessels were not equipped with shaft brakes and the frequency of the reverse operations had a negative impact on the lifetime of the transmission parts, especially the shaft coupling which frequently broke down.

## APPLICATION

Each propeller shaft has now been fitted with a Dellner SKD 65 pressure applied disc brake operating on a 600 mm (23.6 in) diameter brake disc. With 59 bar (856 psi) hydraulic pressure to each brake, a torque of 4.2 kNm (37,170 lbf-in) is generated.

After the shaft brakes were installed, there was a dramatic increase in the reliability of the power transmission components.