



**Product**

## Model FL Bi-Directional Backstopping Clutch

**Application**

## Navy Destroyer Lifeboat Davits

**Highlights**

- Torque rating of 400 in.lb. (45 Nm)
- Custom housing, bearing arrangement and monitoring interface
- Special non-corrosive coating to withstand the salt water environment

A new clutch solution was needed for use on the lifeboat davits aboard U.S. navy destroyers. The clutches are used on the davit winch drives to provide an optional manual drive to the normal powered drive system which smoothly raises and lowers the lifeboats. The existing clutches were failing during routine manual operational checks causing the lifeboats to free fall to water level.

Formsprag Clutch engineers worked closely with the davit gearbox OEM and a naval architect to develop a modified FL-52A Form-Lock bi-directional clutch to meet the stringent naval standards. The unique FL solution featured a custom housing, bearing arrangement and monitoring interface. Navy standards also required the use of a special coating to withstand the corrosive effects of the salt water environment.

Positioned between the davit gearbox and a hand crank, the Form-Lock is a mechanical clutch that can be driven in both directions while automatically providing a holding brake function when the driving torque is stopped. The FL-52A clutches supplied feature a torque rating of 400 in.lb. (45 Nm).

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