



BANN RIVER BRIDGE - BEARING REPLACEMENT

CUSTOMER: FP McCann

DESIGNER: AECOM

CLIENT: Translink

PROJECT: Bann River Bridge

PRODUCT(S) SUPPLIED: GUMBA Pot Bearings

DATE: January 2019

OVERVIEW

The Bann River Bridge is a single-track railway bridge, composed of 11 steel girder sections resting on reinforced concrete piers. Constructed in the 1920's, the bridge has served for nearly 100 years carrying the Coleraine to Derry/ Londonderry line over the River Bann. Innovatively, the bridge features a large bascule type lifting span to allow for the passage of ships below en route to Coleraine Port.

SDG tendered for the design and supply of the replacement bridge bearings, with Main Contractor and long standing partner, FP McCann. To date, this has been one of our most technically demanding projects to work on, due to the shear level of bespoke design involved in the production of the bearings.

SDG worked closely with Manufacturer GUMBA based in Germany to design and supply a total of 36 Guided and Free Pot Bearings in accordance with EN 1337-5.

Pot Bearings are a proven bearing type, their industry standing has been achieved through the combination of a non-reinforced elastomeric bearing (Natural Rubber) confined within a closed steel housing. With a Pot Bearing, it is possible to transmit high vertical loads on a very small area, in the case of the bearings supplied to the River Bann Project, over 1600kN.

Key Benefits Include:

- Pot Bearings have negligible vertical deflection under load
- Pot Bearings have uniform vertical deflection under load
- Pot Bearings have high vertical and horizontal load capacity
- Pot Bearings cause relatively low stress on the bearing seats

