

Northern Ireland Fishery Harbour Authority Kilkeel Ship Lift

The fishing boat repair facility at Kilkeel, some 40 miles south of Belfast, has three slipways each with its own ship lift. This facility features a traversing winch that can service all of the slipways.

The installed ship lift can accommodate a ship with a keel or a flat bottom of 25 metres in length, a displacement 380 tonnes and a maximum beam 8 metres. Following the successful installation and operation of the ship lift, a further ship lift was designed of similar dimensions.

In 2003, Bennett Associates were engaged to produce the design of a new ship lift including:

- Structural design the carriages
- Mechanical design of the bilge beams to accommodate ships of different beams
- Production of manufacturing drawings
- Specification of hydraulic equipment
- Calculation package
- Structural design of the winch carriage

The ship lift comprises of the following elements:

- Structural Three carriages each of which has a pair of vertical bilge beams that supports the ship when it is stood on its keel. Each of the vertical bilge beams may be moved individually or as a matched pair. The bilge beams are removable such that flat bottom ships may be accommodated.
- A control cab is mounted on an elevated structure such that the operations can be controlled from the ship lift when the carriages are submerged.
- The stern of the ship is supported on an additional carriage. The configuration of this can be modified to aid the removal of rudder posts.

Bennett Associates (originally founded in 1984) was acquired in 2008 by Atkins; bringing their proven technical expertise to the UK's leading engineering consultancy.

