

HISTORY OF THE *INDUSTRY*

The *Industry* was built by the Portadown Foundry for the Lambeg Bleaching, Dyeing & Finishing Company, based on the River Lagan near Lisburn. It is a steel-hulled vessel powered by an engine and was launched in June 1920.

It was the second lighter of that name to have plied the waterways of Ulster. Its namesake is first documented in 1865 and was made of timber and hauled by horse. Its owner is unknown, but the Lambeg Bleaching Co had evidently acquired it by 1920. Its replacement retained the original name.

This is not the only instance of a lighter's name being reused. For instance, the Portadown Foundry built the *Amy* in 1906 and also its 1930s' replacement (McClure & Steen, p.176).



This is the earliest known photograph of the present *Industry* and is in a Portadown Foundry photo album (PRONI MIC191/1). It is captioned "Barge *Industry* built for Lambeg Bleaching Co, June 1920" and may have been taken during a test run on the Bann. Note the funnels from the stove (*left*) and engine (*right*). Most lighters used tiller beams to work the rudders, but the *Industry* had a steering wheel at its stern (*far right*).

Portadown Foundry

As indicated by its name, the Portadown Foundry was based at Portadown, Co Armagh. It was located on the River Bann and not only had a foundry but also a boatyard where it began making lighters in the early 1900s. During the 1920s and '30s, it produced many steel-hulled ones including the *Amy*, *Emily*, *Enterprise*, *Industry*, *Joseph*, *Newforge*, and *Portadown*. These vessels were no bigger than their wooden counterparts as they were still restricted by the size of the canal locks. The Foundry also made small cots and carried out repairs to numerous lighters.

Specifications for the *Industry*

There are no records for the technical specifications of the *Industry*, but it was probably similar to the lighter now known as the *Enterprise* which the Portadown Foundry made in 1929 for Benjamin Brown, a sand merchant based at Kinnego, Lough Neagh.

The *Enterprise* is of similar dimensions to the *Industry* and was designed to carry 80 tons at a draft of 5ft 6in. It is now on display at Oxford Island and its specifications are as follows (PRONI D2075/9/2):

- Hull of riveted mild steel plates on angle-iron frames.
- Stem and sterns to be of forged iron.
- Two steel plate bulkheads.
- Deck to be covered with steel chequer plate and finished with bitumen and sand.
- The crew's accommodation to be in the bow section. This space to be fitted with two wooden bunks, a seat table, lockers and ladder steps to the lightermen's requirements.
- Floor to be covered with 1½ inch thick white wood. No side lining to be fitted.
- Painted draft marks (in inches) to be cut into stem and stern posts.
- Name to be painted on stern.

The Foundry undertook to deliver the lighter in five months time for £600 (£100 down, and five monthly instalments of £100). It was driven by a 24hp twin-cylinder S-type diesel engine made by Petters of Yeovil, Somerset. The engine also powered a 2-ton deck crane and cost an extra £450 to fit. The finished lighter was launched in 1930.

The *Industry* was slightly different in that it was fitted with a Swedish-made Bolinder engine but no crane, and its name was painted on the bow, not the stern.

Bolinder Engines

Many of the lighters on Ireland's waterways were powered by Swedish-made two-stroke Bolinder engines. One of the first to use them was the Grand Canal Co of Dublin who retro-fitted 15hp ones to their fleet as early as 1911.

Unlike a modern diesel engine, a Bolinder relied on heat as well as compression to start it. A 'hot bulb' at the top of the cylinder was heated up red hot with a blow torch, fuel injected, and the flywheel then turned by hand to compress and ignite it. Once started, the heat generated by the exploding fuel kept it going.

A simple dog clutch controlled by a lever from beside the steering wheel above deck enabled the lighterman to disconnect the engine from the propeller shaft if he wanted to slow down his vessel and eventually bring it to a halt. To put it into reverse, however, he had to go below deck, stop the engine and then quickly turn the flywheel the other way before the cylinder cooled down too much. Considerable skill was therefore required to slow down and stop a lighter when approaching a lock or quay as, unlike modern boats, it could not simply be slammed into reverse.

Once running, the engine was prevented from over heating by a built-in pump which circulated cold water around the cylinder block from the canal outside. A reservoir of oil inside the engine's sump prevented its bearings from seizing up. The exhaust went through a silencer bolted on to the side of the cylinder and then up a funnel through the deck. The fuel was stored in a tank mounted on the inside wall of the engine room and was replenished through a hole in the deck.

Bolinder engines were robust, reliable, simple to operate (no gears or electrics), and cheap to run (operating on whatever fuel was available at the time).

[Tandem – in Panel 3, I spelt Bolinder as Bollinder. Please correct! Note also that Image 091 shows a Bolinder-Munktell engine and reflects the fact that Bolinder merged with Munktell in 1932]

Features of the *Industry*

Romeo Toogood's painting of a lighter tied up at John Shaw Brown's factory at Edenderry illustrates some of the features which would have been typically of Lagan lighters such as the *Industry*. (Source: NMNI BELUM.U653).



The steering wheel at the stern end (1a) is connected by wire ropes to the rudder (1b). The roof of the engine room is raised above deck, with a small porthole along the side to enable the lighterman to see out (2). Also at this end is the exhaust pipe through the deck from the engine below (3).

The hold was covered by timber planks laid across its top opening (4a). These could be stacked up to form a gangplank when loading and unloading the hold (4b).

A pair of sheer-legs, well secured with a guy rope, were used to support a simple hoist for taking stuff in and out of the hold (5a). The hoist was manually operated by means of a winch at the bow end (5b). The sheer-legs could be easily repositioned to get at different sections of the hold.

Not shown in the painting is the exhaust pipe from the stove in the crew's cabin (6).

The working life of the *Industry*

In its initial months of operation, the *Industry* delivered 60-65 tons of coal up to twice weekly from Belfast to the Lambeg Bleachworks. Its passage up the Lagan is meticulously recorded in the LNC's toll books as it passed through the 1st lock at Stranmillis.

By September, it was trading further afield, with regular trips across Lough Neagh to Portadown on the Upper Bann and to Maghery at the mouth of the River Blackwater. It could not enter the Ulster Canal as it was too wide to fit its locks. Whilst it could have used the Newry Canal, there are no records of it having done so.

Its increased range, well beyond Lambeg, suggests that it had possibly been acquired by the Inland Navigation Company in late 1920. This seems to have been the case by October 1921 when the company wrote to the Portadown Foundry asking what type of oil the *Industry* used.

For the rest of the 1920s and into the early '30s, the *Industry* continued to ply the Lagan, Upper Bann and Coalisland Canal.

Its masters (also known as a 'skippers' or 'captains') during this period were F. Fox, Henry McCourt, and James Spindlow. They were possibly assisted by a junior crew member ('mate') whose names are lost to posterity. Unlike some other barges, there are no records of a lighterman's family ever having lived on the *Industry*.

Coal was its predominant cargo, but it sometimes carried general merchandise and grain instead. Its two main customers were still John Shaw Brown at Edenderry and the Lambeg Bleachworks.

Messrs John Stevenson & Co, millers and merchants, occasionally also used it for urgent deliveries. Although they owned a sizeable fleet of horse-drawn lighters, the *Industry* was much faster as it was motorised and could keep going in all weathers. It could bring grain from the docks in Belfast to their mill at Coalisland within a day (compared with 3-4 days by horse-drawn lighter).

The Irish Peat Development Company also used the *Industry* to ship peat from Maghery to Belfast. Coal was also taken from Belfast to Coalisland, and sand (for building work) in the opposite direction.

From 1934 onwards, the *Industry* was used almost exclusively by the Antrim Iron Ore Company for coal deliveries to Edenderry and Lambeg. Whether this company actually owned it or just chartered it is, however, uncertain.

From 1941 to 1943, the *Industry* made frequent journeys from Belfast to Coalisland with coal deliveries. It may, in fact, have been requisitioned by the Government during this period as the consignee was the Inland Water Transport Division of the Royal Engineers.

After the end of the war, the lighter returned to the Lagan to service the Admiralty's Naval Armament Supply Depot at Belvoir Park, adjacent to the 2nd lock. Here ammunition was stored and the waterway was a convenient ideal way of transferring it to and from the docks. It is possible that it was actually one of John Kelly's coal boats at this time, but no conclusive verification had yet come to light.

The *Industry*'s last recorded movement in military service was on 21 May 1946 when it made two journeys between Belfast and Belvoir.



This photograph in PRONI is captioned “Edenderry Village, Shaw’s Bridge, including a barge delivering coal from the Antrim Iron Ore Co Ltd to John Shaw Brown & Sons Ltd” (PRONI D3670/B/10). The vessel has been identified by May Blair (*Once Upon the Lagan*, p.12) as the *Industry*.

Sand barge on Lough Neagh

Around 1947, the *Industry* was bought by Arthur Mulholland, a sand merchant based at Ellis’ Gut on Lough Neagh, for conversion to a sand carrier. Sand dredged from the lough was used extensively (and still is) by the construction industry in Northern Ireland, particularly during the post-war housing boom.

Mr Mulholland replaced the *Industry*’s original Bolinder engine with a Gardner diesel marine engine. He also fitted a new propeller, grab crane and a sand tank in the hold to store the sand excavated by the crane from the bed of the lough.

During its life as a sand boat, repairs were carried out from time to time to patch up rust holes in the hull. These entailed welding bits of steel to the outside and even pouring concrete along the bottom of the hold fill in smaller perforations. Such repairs eventually became impractical and by the mid-1970s the *Industry* had been abandoned. Its 50 life of industrial service was now at an end.

House boat conversion

Boating enthusiasts Gabriel and Hillary Boylan bought the *Industry* from Mr Mulholland in the mid-1980s. As they were based in the Republic of Ireland, they brought it by road from Lough Neagh to the River Shannon.

Here it lay until c.2008 when it was towed to Donnie Collins' boatyard at Rooskey on the River Shannon. The Boylan's intention was to convert it to a house boat, but with the death of Mr Boylan, this plan was never realised. And so the *Industry* escaped conversion and remained as it was when last used as a sand barge.