

## Inland Waterways News

### The Limerick navigation

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The new Limerick navigation opened in late July. Since then, twice as many boats have passed through Ardnacrusha as in a full year before the improvements were made. Nonetheless, there have been problems, some serious and some not. This page recounts my own experience on our trip to the official opening. On page 13, we look at the problems.

#### ***Killaloe to Ardnacrusha***

We passed under Killaloe Bridge just before 8.00am. The Flooded Area was quite attractive; Parteen Weir looked like a giant castle. We passed under the guillotine gate at 8.30am and entered the headrace. We had phoned the Ardnacrusha lockkeeper the day before and we rang again from the headrace, to find that the Parteen Weir people had told him we were coming.

The headrace canal was more interesting than we had expected, the current was not noticeable and we had 8m of water under us. At 9.20 we saw Ardnacrusha framed by the central arch of Blackwater Bridge. Two other boats had just entered the lock so we tied to the jetty, which has had some repair work done on it but needs to be extended: it is not long enough for two boats.

It takes between 45 and 60 minutes for one lock cycle and, depending on their sizes, between one and four boats will fit in the lock. That means it's essential to book your passage with the lockkeeper (087-9970131). It's also wise to find out how many turbines will be running, and thus what sort of current may be expected.

At 10.30 we entered the lock, sharing with Denis Tydings's **Malagas**, and at 10.35 the guillotine gate descended behind us. The drop is very gentle, with little turbulence. We held on to hooks in the wall, moving from one hook to a lower one as we descended. The walls are weedy, with lots of mussels on them. There are ladders in the chambers, but I wouldn't fancy having to climb them. Behind us was a huge cill and ahead a moving barrier to keep the boats back from the middle wall and gate, while above us the sky got smaller and smaller.

At 10.50 the descent stopped, the middle gate lifted and we entered the lower chamber. We paid the fee (and a bit over) and started descending again. The lower chamber was mossy but had no mussels; otherwise the descent was much the same. We were out of the lower chamber by 11.20.



Inside Ardnacrusha

## ***Ardnacrusha to Limerick***

The short canal below the lock is fairly quiet, but we knew that we would feel the current once we entered the tailrace proper, so we increased speed as we did so. The tailrace was very scenic, lined with trees on both sides but with the rock from which it was blasted clearly visible. We rejoined the Shannon proper at Corbally, noted the first of the aircraft gauges and went under the railway bridge at 11.37. Then it was into the Abbey River: with green on all sides, we might have been in the middle of the countryside.

We knew that we'd feel the current from O'Dwyer's Bridge onwards. We went under it at 11.45, then headed for Abbey Bridge, lining up in the middle of the arch; no time for second thoughts with the current under us. We shot through. Then Baal's Bridge: lots of headroom, but only a few seconds to ensure we were on track. Straight past the George's Quay moorings: no hope of stopping there while heading downstream. Then the real shock: seeing the current powering under Mathew Bridge, with a step in the water. Shot through, under the footbridge and then sharp left across the current into the calm of the Custom House Quay moorings. Touched the batter that stretches out underwater, about five feet from all the walls, but got off easily and, at 11.50, we tied up.

It took only five minutes to get from O'Dwyer's Bridge to the moorings, with no time to evaluate different approaches or worry about the current. It would have been better to go down as far as Arthur's Quay and turn there, but we didn't think of that until later.

The Custom House moorings are very well located, in the heart of the city but secure and quiet with a wonderful view. Water and shore power hadn't been connected when we were there but probably will be by the time this appears. There was 24-hour security.

## ***Upstream***

We stayed for two nights, leaving on Saturday at 12.45. At maximum power (such as it is), we turned sharp right into the current heading upstream. Our old boat is not very powerful (40hp), but we made about one knot. Baal's Bridge in eight minutes, Abbey Bridge in nine, O'Dwyer's Bridge in twelve, as against the five minutes it had taken us to go downstream. Once through there, we eased off and reached Ardnacrusha at 1.38. Going up was only slightly more turbulent than going down: less turbulent than a Grand Canal lock. There was a lot of spray, but apart from that there was no problem, and we got through in 45 minutes, with an uneventful passage from there to Dromaán.

## ***M-boat at Mathew***

On 15 August an M-boat left the Custom House moorings at 8.00am, about two hours before low tide (which was when it had come down), having booked Ardnacrusha Lock for 9.00am. The current seemed to be 3–4 knots, within the boat's maximum speed of 5.5–6 knots. However, the current under the centre arch of Mathew Bridge was faster and the boat could not get through. The side arches, which were not dredged, are 3.5' shallower, funnelling water through the centre arch and increasing the flow.

The crew felt it would be unsafe to let the current take the boat backwards; they might have lost control and hit the weir (the chains would not hold a cruiser, never mind an M-boat). The bridge had

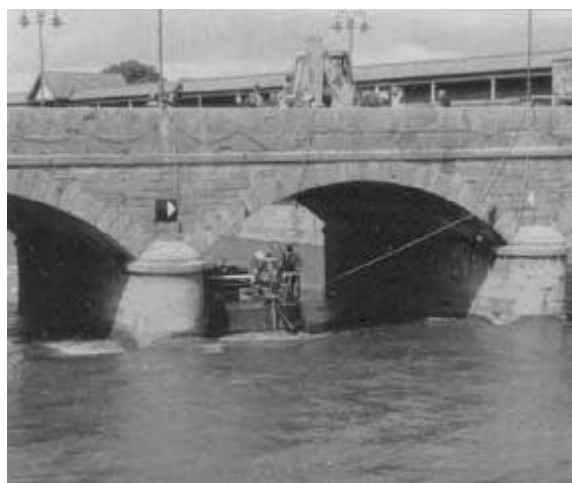


**Mathew Bridge before rewatering**

no rings or bollards so, with help from other boaters, they put ropes around two lamp-posts on the bridge and two more around a bridge pier, and waited for the incoming tide to counter the flow. They notified the Ardnacrusha lockkeeper that they were blocking the navigation; if another boat had come downstream, it would have been difficult to avoid an accident.

The flow increased even after the tide turned: by 10.00am three turbines were running at Ardnacrusha. Fearing that the ropes or the lampposts would give way, they asked Limerick Corporation for a JCB to which they could tie a rope, but were told that it was Waterways Ireland's problem.

The boaters did not feel justified in summoning the emergency services, but the Corporation and a passer-by did so; the Fire Brigade arrived and evacuated women and younger folk by ladder. At 11.30 a privately-owned JCB agreed to park on the bridge to act as an anchor. The Fire Brigade brought a big rope from the docks and passed it from the bow of the M-boat over the bridge and down to the stern, providing complete security but closing the road to traffic.



**JCB becomes an anchor**

The RIBs of the Gardaí and the Limerick Marine Search and Rescue Service, which had been searching for a body on the estuary, arrived below the weir; rescue personnel reached Mathew Bridge on foot and got their boat over the weir later on. After 12.00 the flow began to reduce as the tide rose; the JCB departed and the rope across the bridge was removed. The turbines shut down after 1.00 and at 1.45 the M-boat was able to leave.

## **Safety**

Nobody was killed or injured and the M-boat suffered not a scratch, but the incident raises questions.

1. *Is the Limerick–Ardnacrusa navigation usable in all conditions?* No. The current narrows the expected navigation window (6 hours on spring tides, 9.5 hours on neaps). The current seems to depend on (a) rainfall, (b) state of the tide, (c) how many turbines are running at Ardnacrusha and (d) the acceleration of the current above Abbey Bridge and again at Mathew Bridge. Even if the flow elsewhere in the Abbey River seems manageable, it may be too fast at Mathew Bridge. Consultants are working on a model.
2. *Do boaters get enough information to enable them to make the correct decision about when to enter the navigation?* Boaters need to know the times of tides and conditions in the Abbey River before entering it. It is proposed to have a gauge measuring flow through Mathew Bridge and to convey that information electronically to the Limerick moorings and to Ardnacrusha. Boaters are advised to ring the Ardnacrusha lockkeeper, not only in advance for booking a passage, but also immediately before leaving the Limerick moorings, both to confirm their departure and to get last-minute information about the turbines: ESB will tell the lockkeeper how many turbines are expected to be run each day. It would also be useful if boaters were told what other boats will be in the navigation.
3. *Can conditions change after a boater has decided it is safe to enter the navigation?* Yes. Although it's unlikely, ESB might have to start up more turbines while a boat was between Limerick and Ardnacrusha, so the boat might encounter a faster than expected current. ESB will not take account of the presence of a boat in the system and does not believe

that it has any responsibility to its crew. ESB says that, if a boat cannot handle the effect of four turbines plus rainfall plus tide, it should not be in the system.

4. *If a boat has a problem, can it stop safely anywhere?* Between Ardnacrusha and O'Dwyer's Bridge, waiting pontoons will be installed. Above Abbey Bridge, the area below the old canal lock will be dredged (and the lock will be restored, but not this year). Rings should be installed at the bridges, although they might not help downstream boats.
5. *In an emergency, how can boaters summon help?* Waterways Ireland is not known to provide a rescue service and publishes no emergency contact number. Its Scarriff office is 061-922033/4. The Limerick Marine Search and Rescue Service, which has the nearest rescue boat and works with the Fire Brigade, can be summoned by ringing 999. It is not at present linked with either the Coastguard or Waterways Ireland. The Ardnacrusha lockkeeper is at 087-9970131; the sea-lockkeeper is at 087-6991910.
6. *If help is summoned, can it be delivered effectively?* The Limerick Marine Search and Rescue Service believes that there should be a slipway above the sea-lock so that, even if the lock cannot be opened, a rescue boat can get into the Limerick–Ardnacrusha stretch. It might also be desirable to have a safety audit carried out and a safety plan developed, with clear allocation of responsibilities.

