

Guide to the Use of Canal Lock Paddles For Adults, with Guidance on Child Safety

Introduction

Canal locks help boats move between different water levels. Lock paddles are the winding mechanisms that control the flow of water in and out of a lock chamber. Used incorrectly, they can cause serious injury or damage. This guide outlines how to operate paddles safely and the responsibilities of adults, especially when children are involved.

The design of locks in England dates from the late 18th century/early 19th century. The Regent's Canal was opened in 1820. No significant changes have been made in the design or in the manner in which locks are operated since then.

Lock paddles are small sliding doors built into the lock gates (gate paddles) or in the side walls (ground paddles). When opened, they allow water to flow between the canal and the lock chamber, raising or lowering the water level as needed. The operation is manual, typically by inserting a windlass onto a spindle and turning it. Occasionally the paddles are operated electrically and controlled with press buttons. These notes relate only to the manually operated paddles.



Ground Paddle



Gate Paddle

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1. Step-by-Step Paddle Operation

1. **Maintain a firm footing:** Stand securely and never overreach. Be particularly alert near the lock edge.
2. **Engage the windlass:** Fit it onto the spindle securely; if the windlass has two holes, use the one with the better fit. Some holes are tapered as are some spindles, in which case they will probably fit better together.
3. **Ensure that the safety catch (or pawl) is engaged and wind the paddle up slowly until it stops:** Check with the skipper before starting to lift the paddle. Raise the paddle part way at first if the boat is in the lock while it settles, and then complete the operation. Raising the paddle may require some force and strength, particular at first.
4. **Once the paddle is raised, remove the windlass from the spindle:** This is because there is a risk of the safety catch disengaging causing the windlass to spin round and fly off, and so cause injury.
5. **Monitor constantly:** Be prepared to stop the operation and to lower the paddle in an emergency if asked to do so, for example if the boat becomes stuck or if anyone falls into the lock.
6. **Lower the paddle gently:** When the lock has filled or emptied completely and the gate has been opened, wind the paddle down slowly by re-engaging the windlass on the spindle, raising the paddle a short way so that the safety catch can be removed or held back, and maintaining a firm grip on the windlass to avoid damage to the paddle and risk of injury to yourself. Some paddles require significant force to keep them under control (to resist the weight of the paddle) when being lowered.
7. **Never leave a paddle part-wound:** Always fully open or fully close it and then remove the windlass to avoid the risk of accidental movement.

2. Supervision and Children

Children must NOT operate paddles unsupervised.

Risks include:

- Losing control of the paddle when raising or lowering it.
- The windlass spinning round or flying off and hitting the child or another person.
- Catching fingers in the mechanism or in the safety catch.
- Falling into the lock.

Adult Responsibilities:

1. **Children under 16 should not use a windlass without direct adult supervision.**
2. Adults must assess whether a child is physically strong enough and understands the risks. **If in doubt, do not allow the child to operate the paddles.**
3. Children should only operate paddles with close adult oversight—**one adult per child.**
4. Adults must ensure that the safety catch is engaged when children raise a paddle (often this happens automatically, but check!).

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5. Adults must ensure that the safety catch is raised/disengaged in a safe manner and, if carried out by a child, that the child has sufficient reach and strength to do this and retain a grip on it while keeping their fingers away from the mechanism.
 6. Smaller and younger children in particular are at risk of losing control of the windlass **when the paddle is being lowered** – to avoid this, the supervising adult should keep a hand on the windlass with the child while the child lowers the paddle.
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3. Messages for Children

1. **Keep away from the canal edge.**
2. **Only turn the windlass if an adult tells you to and when they are standing close to you.**
3. **Always keep a firm hold on the windlass.**
4. **Keep your hands away from the moving parts.**