



by Geoff Stubbs
Photos: Andy Farrer

The Whimsy

David Bowerman is one of our better known Purbeck craftsmen, notably for his fabulous and famous gravity-driven wooden clock. It's not often he has an opportunity to create imaginative works and we were lucky to have caught him before his latest confabulation, *The Mermaid*, was delivered to its proud, new owner.

The Mermaid is an automaton. Automatism is the term Descartes gave to the theory that humans behave and act involuntarily, thus we are mere automata. The theory's poppycock, but I felt I just had to write that! These days it more generally refers to machines that resemble humans or other animals, capable of independent movement. These seemingly animated objects can reach astonishing levels of complexity; a certain J N Maskelyne constructed an automaton between 1875-77 which "played cards, chess and draughts, worked arithmetical problems and drew portraits." Even earlier, in 1738, a mechanical duck, flautist and tambourine-player were exhibited in Paris by Jacques de Vaucanson. The mechanical monkeys we sometimes see on top of organ grinders' boxes are contemporary examples of automata.

This automaton doesn't aspire to the giddy heights of card-playing but is significantly more refined than an organ

grinder's chimp. The piece comprises the eponymous boat with its distinctive figurehead floating upon choppy seas, its mustachioed, put-upon rower – a sartorially-appropriate thief – perched on a case of stolen jewels and accompanied by a drunken haridan in apricot evening dress who is wearing a crown and clutching a bottle of rum... And there's a dog, too, attired and coiffured as Elvis Presley, microphone in its paws.



The story tells itself... doesn't it?

from the ample and be-pearled bosom of his passenger, whose mouth opens and shuts in both admonishment and revelry. And the hound dog? His jaw gets to work too, singing into the mike like a Las Vegas trooper.

It's utterly ridiculous and completely delightful; a folly or, as its maker and owner prefer, a whimsy. How on earth did David come to make it and who came up with that outrageous design? Within the answer lies a poignant tale...

David befriended an ebullient couple he'd met while playing at navigator on a car rally; the fellow, in particular, was a larger-than-life character and a successful inventor. For his 70th birthday, his good lady commissioned David to construct something entirely impracticable - a whimsy. Planning began at once, her mechanically-minded husband integrally involved. There were specifications: the waves must rise and fall randomly, the dog must be Elvis and have a microphone – in fact every detail was meticulously planned.

Sadly, though the engineer had been diagnosed with something abominable beforehand, he passed away much sooner than had been expected, while the gift was still incomplete. Being such a deeply personal project, David simply could not have finished or sold it to anyone else. Some days after the funeral, a phone call from the inventor's widow threw new light on the subject: the whimsy should be completed to become an object, a symbol, that celebrated the inventor's life... something to remind those who knew him (and give a sense to those who didn't) of his joyous nature, his wonderful humour and irrepressible love of adventure. Work instantly resumed.

Now to the gubbins: the entire apparatus is 18 1/4" long, 10 1/4" wide and 20" high (or 463.55 x 260.35 x 50.8mm). The mechanism sits upon a plinth to accommodate turning the handle, and even this banal detail has its story: the box is of the cosseted English Yew and the trimming is of ebony that was purchased on a beach on the far shores of Mombassa. The handle drives beveled gears via a one-way clutch and another slip clutch to protect the mechanism. Why one-way? "Because people don't row backwards." I argued with David that that is precisely what they do, but this was beside the point.

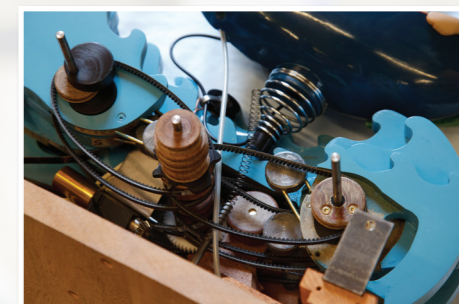
This action rotates a series of eccentric cams which are responsible for the random movement of the waves. Each cam is of a slightly different diameter, producing countless permutations of interaction between the nine moving and two static outer waves which form the upper casing. *The Mermaid* sits between three sets of half waves which also move independently of their opposites. It's "countless permutations" because David hasn't done the maths... but patterns do repeat at some point.

Like a conjurer revealing (or not) the tricks of his trade, David manages to keep much concealed. Quite how the rower functions remains hidden (it would have involved splitting the poor fellow and his vocal company!) but we do get a good view of the entrails via his 'thinking parts', as David puts it (see photo), and his workings are every bit as complicated as the movement of the boat: a spindle-driven belt drives the arms in a circular motion as a cam rocks the figure to and fro while, by specific request, his neck tracks in and out on a curved spine - so that his head bobs and nods in rhythmic counterpoint to his torso as it rocks. It's with this kind of touch that, when David says the late inventor and designer of *The Mermaid* is responsible for many life-saving machines in our hospitals today, you can believe him.

visit www.davidbowerman.co.uk to see some of his creations in action



View of the interior, showing some of the 17 German-built cam belts and pulleys. Matched pairs of pulleys, all at slightly different diameter changing the ratio of the wave cams, produce a random pattern of movement



Built to engineering standards, e.g. all spindles run in engineering-grade bearings. Note the wire eggcup



Full wave and pair of half waves showing slot to accommodate an eccentric cam, allowing for movement



The rower is driven by an 'O' ring tensioned by a jockey wheel. The thin white tube is the cable that operates his jaw