

Dipping lugs on the up

This efficient, but – to some – alarming rig had almost died out along with fishing under sail. But now, with restorations and new boats, it's enjoying a well-deserved revival. **By Jonny Nance**

By the time working sail was finally replaced by power, the dipping lug had developed into one of the most efficient and powerful rigs ever devised and was used almost universally by thousands of fishing boats from Cornwall to the Shetlands.

The rig has one drawback, however, and the clue is in its name. 'Dipping' means lowering the sail every time you go about, and moving it around to leeward of the mast before rehoisting it on the new tack. While this was considered a worthwhile inconvenience by the large crews required to handle the nets, it was an effective deterrent for the leisure sailors that were to follow. The rig became rapidly obsolete, its efficiency and advantages forgotten while apprehension of what 'dipping the lug' might actually entail became an ever greater deterrent.

There things may have remained – but something was stirring down in the far west of Cornwall...

A family affair

My grandfather, Robert Morton Nance¹, was clearly obsessed with shipping from a very early age. Luggers were in their heyday and were frequently the subject of his many childhood sketches and watercolours (including the St Ives pilchard boat, above). Some of these date from the mid 1880s and so are contemporary with the introduction of the original Jumbos to St Ives⁴. They not only show the burgeoning artistic talent of the young teenager but also a remarkable practical understanding of the rig which he must have acquired through observation,



Watercolour of a St Ives pilchard boat, painted by Jonny's grandfather, Robert Morton Nance

for he had little or no practical experience as far as I'm aware.

Much has been written about the wide-ranging achievements of this remarkable man. Writing this, it occurs to me that the Cornish lugger is a common thread that unites them, aptly representing his work as an artist and illustrator, a maritime historian

The Cornish lugger unites his work as artist, historian and champion of the Cornish revival

together with his growing involvement in the Cornish revival which was to take over the second half of his life².

Some of this was bound to rub off on his children. So it was that my father Dicon took up the lugger cause, but he was decidedly more 'hands on'. In the early 1930s, anticipating today's revival by some 40 years, he decided to restore the St Ives pilchard driver *Godrevy*, SS92 to her former sailing condition.

About this time, the Society for Nautical Research, which R Morton Nance had helped set up, commissioned Philip Oke to record the lines of as many of the remaining working boats as possible. He arrived in 1935 to take the lines off the *Godrevy* and the old mackerel boat *Ebenezer* which lay rotting nearby. These drawings were later published in March's *Sailing Drifters*³. March was himself a member of the same society and his book has become a bible for the lugger owners of today.

Unfortunately I never got to see the *Godrevy*; soon after the war Jim Morrison of Falmouth made my father an irresistible offer and sailed her, he was to tell me some 30 years later, back to Falmouth almost single-handed. She was later lost having broken free from her moorings in the Channel Isles. By the time I came along, of the dozens of luggers laid up at Lelant, only bones remained including those of the famous *Ebenezer* built by William Paynter away back in 1867.

Nonetheless, just like my father, I had also been surrounded by photos, paintings and models of luggers from early childhood. So, long before I had any technical understanding of the lug rig, I had become very



Modern versions of the St Ives Jumbo, Celeste (2007) and William Paynter (2010)



familiar with its appearance, and found something pleasing in the way in which the luff of the fore-lug rises in a continuous line from the straight stem so that, close-hauled, the sail appears to be an extension of the hull.

As children, we used to sail model boats on an old engine pool remaining from mining days. It was here that I learnt the basics of sailing just as I assume my father had done. One of our favourite boats was a model my grandfather had made of a St Ives pilchard driver which I still have. Perhaps this is where my father got the romantic notion to have his own pilchard boat. It was certainly our introduction to the principle of 'dipping the lug' to get the sail on the leeward side of the mast for her return tack across the pond.



Fast forward almost 50 years; it's 2007 and we have just launched the first modern Jumbo⁴, *Celeste* (to be followed in 2010 by *William Paynter*, named in honour of

their original designer), and having cleared St Ives harbour entrance, we are sailing free.

Aboard the real thing, as opposed to a model, a number of virtues of the rig are immediately apparent. These are in addition to its fabled power and efficiency and help to explain why this rig remained the popular choice of fishermen right up to the end of the age of sail.



Below:
Godrevy
SS92, Seen
here at Lelant
in 1935
proudly
showing her
new rig.

Firstly, there's a large working area amidships because the mizzen mast is stepped well aft. To allow for this, the mizzen is sheeted to a boom which, in the case of the Jumbo, extends one-third of LOA beyond the stern post.

This is obviously ideal for handling nets and gear but it turns out to be also ideal for today's leisure sailing. In most conditions the Jumbo crew can effectively arrange themselves in a circle which is far more conducive to communication and a social time afloat.

Unlike most modern rigs, there is no boom or sail obstructing the work area – not even when close-hauled. This is because the fore-lug is usually tacked to the stem-head (like a genoa) and not the mast, while the loose-footed sail is sheeted to a position outside the bulwarks.

Any loose-footed sail sets less well with a deep reef. The Cornish lugger's answer is to have sails that are geometrically similar

The general simplicity of the lug rig had its advantages: the fore-lug and even the mast itself are easily lowered. With gaff rig this would not be an option

so that the mizzen may be simply set on the foremast and replaced with a smaller, balancing sail. This process maybe repeated if required.

The general simplicity of the lug rig had its advantages. In their working days, having shot the nets, the fore-lug was lowered, leaving the mast bare, save for the halyard and the burton (an additional running backstay). Depending on the sea state, the foremast itself might also be lowered as boat and nets 'drove' with the tide. With the gaff rig, owing to the forestay, shrouds, and top hamper of peak halyards, etc, this would not be an option.

Dipping the lug

Let's take a look at this process that has made this efficient rig so unpopular. There are a surprising number of ways of dipping.

One is to lower the sail completely, release the tack, and unhook the yard from the traveller so that the whole sail and yard can be pulled aft and forth again before re-hooking onto the traveller on the other side of the mast. According to Edgar March³, this is the method favoured by the East Coast fleets. It is also used by the few Cornish pilot gigs that, in defiance of modern health and safety concerns, still have their original rig.

The Beer Luggers⁵ of Devon have devised a method which is a wonder to behold! It is similar to the Arab lateeners in that the sheet is pulled around outside the luff followed by the sail which eventually rolls the yard, now in an almost vertical position yet still aloft, around the fore side of the mast before the yard drops, as if by magic, into its normal position on the new tack. However, this method requires a high-peaking yard hauled right to the masthead and a raking luff (so that it almost resembles a lateen). In truth it is better suited to the smaller sails of slithery modern cloth and light gear of today's racing fleet. The lateeners, on the other hand, must 'wear ship' so that the enormous sail flies free of the luff around which it would otherwise jam.

Interestingly, in their working days (which survived right up until the Second World War) Beer Luggers would also wear ship. Maintaining boat-speed helped compensate for the loss of ground during this manoeuvre. Tacking was reserved for regatta days when more crew were available. Regattas continued after the war but now that the rig was primarily for racing, the yard was peaked up higher and lengthened to facilitate tacking.

By 1985, when Alan Abbott stepped in to resurrect the fleet based on their smaller crabber, sailing had almost ceased. Thanks to him the class is thriving today and although a far cry from the trawlers Alan's father used to sail, it's a rare example of a continuous sailing tradition.

Apparently, Edgar March never visited Beer in preparing his seminal book. Had he done so perhaps this ingenious solution to dipping the lug might have been adopted by more of today's leisure fleet.



For now, however, we're concerned with the method of dipping formerly used in West Cornwall which in recent years has once again proved itself to be the most practical.

Aboard a Jumbo, which carries little way and is easily deflected by a short sea, the order of events for tacking in light airs is as follows. On putting the helm down, the mizzen is sheeted in to help 'weathercock' the boat into the wind. Once through the wind the sheet is freed so she is not brought back into the wind. The sequence then, as shown in the photos opposite, is:

- 1 As the foresail starts luffing, the fore yard is lowered. The peak drops first because the foreyard is slung from a point roughly one third of its length from the forward end.
- 2 The slack is gathered in by pulling on the leech until the peak of the yard is grasped. (On the bigger boats the scandalised peak is particularly hazardous so a vang is sometimes used to help control it).
- 3 Having cast off the sheet, the peak is brought forward around the windward side of the mast and placed before it on the deck or, in the case of the jumbo, the thwart.
- 4 Now that the weight is off the halyards they can be safely transferred to the new windward side along with the burton. The way is now clear to leeward of the mast to pass the clew back.
- 5 As soon as the sheet has been made off the sail is hoisted on the new tack whilst the peak is thrown clear of the crew's heads as it sweeps aloft in a dramatic arc.

With flowing curves, unencumbered either by the mast, the shrouds or the hoops and hanks required by other rigs, the powerful forelug fills on its new tack as the boat surges ahead. Physical exertion aside, there's something elemental and particularly satisfying about this moment which epitomises the appeal of the dipping lug.

There's another benefit unique to this rig. When sailing on the wind, sheeting in the fore-lug also increases the luff-tension owing to the unbalanced slinging of the yard.



Above: the mackerel driver Barnabas whose restoration started the lugger revival. Right: Tacking sequence for the dipping lug



ANNE CURNOW CARE



Jumbos Celeste and William Paynter racing at St Ives

The main advantage of the West Cornish method is that the tack remains attached. This means that there's a serviceable 'fore triangle' throughout the manoeuvre. Should the boat be caught in stays, this may be used as jib aback by holding the peak out to windward.

Today's revival finds its feet

The current revival of the Cornish dipping lugger began during the 1970s with the first of several high-profile restorations, the mackerel driver *Barnabas* SS634. Peter Cadbury's generosity had saved one of the last remaining St Ives luggers but there was no team in place with the experience to sail her properly. Apprehension still surrounded dipping the lug.

It wasn't until Jonno and Judy Brickhill, working quietly up at Gweek, had restored the 40ft Looe lugger *Guide Me* to sailing condition that the revival got underway. Embracing traditional know-how, the adventures of the Brickhill family and their engineless craft are now legendary.

Their example was just what was needed to dispel lingering doubts. Soon others

followed suit so that by 1989 enough former luggers had been returned to sail that Paul Greenwood was able to reintroduce the Looe Lugger Regatta.

In 1992, returning via the Caribbean from a voyage to Cape Town, *Guide Me* swept the board at Antigua Classics, proving that a lugger can be competitive – despite all the dipping – even amongst conventional racing rigs.

Guide Me swept the board at Antigua Classics, proving that a lugger can be competitive

The following year saw another first which, a few years earlier, would have been unthinkable: a brand new dipping lugger was launched at St Ives by Norman Laity and friends. Appropriately, *Dolly Pentreath*, as she was named, was built using the lines of *Godrevy* which my father had restored 60 years before.

Fortunately, these pioneering individuals were just in time to benefit from the fading memories of those who had first hand experience of working these boats under sail (in Alan Abbott's case, his own father) thereby ensuring a degree of continuity and authenticity.

Thanks to them, the lugger revival is alive and well today, and paved the way for the introduction of the Jumbo in 2007.

The Jumbo, at only 20ft 6in LOD has all the characteristics of the rig in an easily manageable form, making her an ideal boat on which to learn.

Compared with the larger boats, dipping the lug on a Jumbo is child's-play. Nonetheless, it calls for a certain amount of co-ordination from the crew which is rewarding to master. Naturally, it has become a source of pride amongst the faster boats competing at the Looe Lugger Regatta and, more recently, among the crews racing the Jumbos.

Although quite large enough to be an effective working boat, the Jumbo has all the characteristics of the rig in an easily manageable form making her an ideal boat on which to learn. ★

Notes

1. Described as one of 'the very fathers of modern maritime research' by Basil Greenhill, R. Morton Nance 1873-1959 was a key member of a small group who set up the Society for Nautical Research in 1910. He was a regular contributor to 'The Mariners Mirror' which was first published a year later. Both the society and its journal have been a principal point of reference ever since.
2. He was the founder of the Federation of Old Cornwall Societies, which began at St Ives in 1920. He became Grand Bard of the Cornish Gorsedd and was instrumental in re-establishing the Cornish language.
3. 'Sailing Drifters' by Edgar March (a member of the Society for Nautical Research). Pub. Percival Marshall 1952.
4. The Jumbos were a small class of open, double-ended luggers introduced exclusively to St Ives during the mid 1880s. The modern Jumbos were built by the author and are replicas of a design by William Paynter. They are operated by the St Ives Jumbo Association. www.stivesjumbo.com.
5. Information concerning Beer Luggers has been generously provided by Alan Abbott.