

# Anatomy of a Knock-Off

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Photos by James Hatch

## Introduction

Since they began showing up on eBay in 2009, knock-off model kits made in China have engendered controversy. Some ship modeling sites banned discussion of the new kits, pointing out the obvious similarities between the new kits and those already in existence from western manufacturers. Other sites took a hands-off approach, with various justifications for doing so, ranging from claims that it is not the duty of social media sites to police intellectual property theft, to arguing that a builder's decision to purchase of a knock-off kit is something akin to exercising protected free speech. And thus, the Chinese knock-off kits polarized the ship modeling community in a way no other issue had done.

Although plenty of photographic evidence of kit-copying could be, and was, gleaned from the Internet, it had to be admitted that such evidence was second-hand in nature. What nobody in the anti-knock-off faction had done before now was to document an up-close, side-by-side comparison of a western kit and its purported Chinese copy. Here we set out to do exactly that—a side-by-side comparison. Is one kit a copy of the other? You be the judge. Afterwards, we'll examine social media's role in facilitating the sale and distribution of knock-off kits and other forms of infringed intellectual property.

## The Kits

We chose to examine the *Lady Nelson* from Amati's Victory Models line of kits, along with the ZHL kit of the same name. ZHL is a Chinese company whose catalogue includes a large number of suspected knock-offs. The authors settled on *Lady Nelson* for several reasons:

- It's cheap. While we felt that doing this project was important, we didn't wish to put large sums of money into ZHL's pockets. And we're not made out of money, either.
- There was already sufficient photographic evidence available online to suggest that the ZHL kit is a knock-off. Other suspected knock-offs are also well-documented online, such as those of Panart's *San Felipe* and Caldercraft's *HMS Diana*, but those kits are much more expensive.
- *Lady Nelson* is a fictitious vessel. This point is very important. *Lady Nelson* is a model of a generic English naval cutter of the late 18<sup>th</sup> century, not of any actual vessel. In other words, *Lady Nelson* is a creative work—to a certain degree it's a product of the imagination of its designer, Chris Watton. Therefore, if another company, say ZHL, were to independently create its own version of a generic cutter, it is highly unlikely that they would arrive—without copying—at exactly the same design. We'll come back to this point later.
- *Lady Nelson* was released by Amati in 2003, at least five to six years before ZHL kits started producing wooden ship model kits. There can therefore be no question that the Amati kit came first, nor can one reasonably suggest that Amati copied their kit from ZHL.

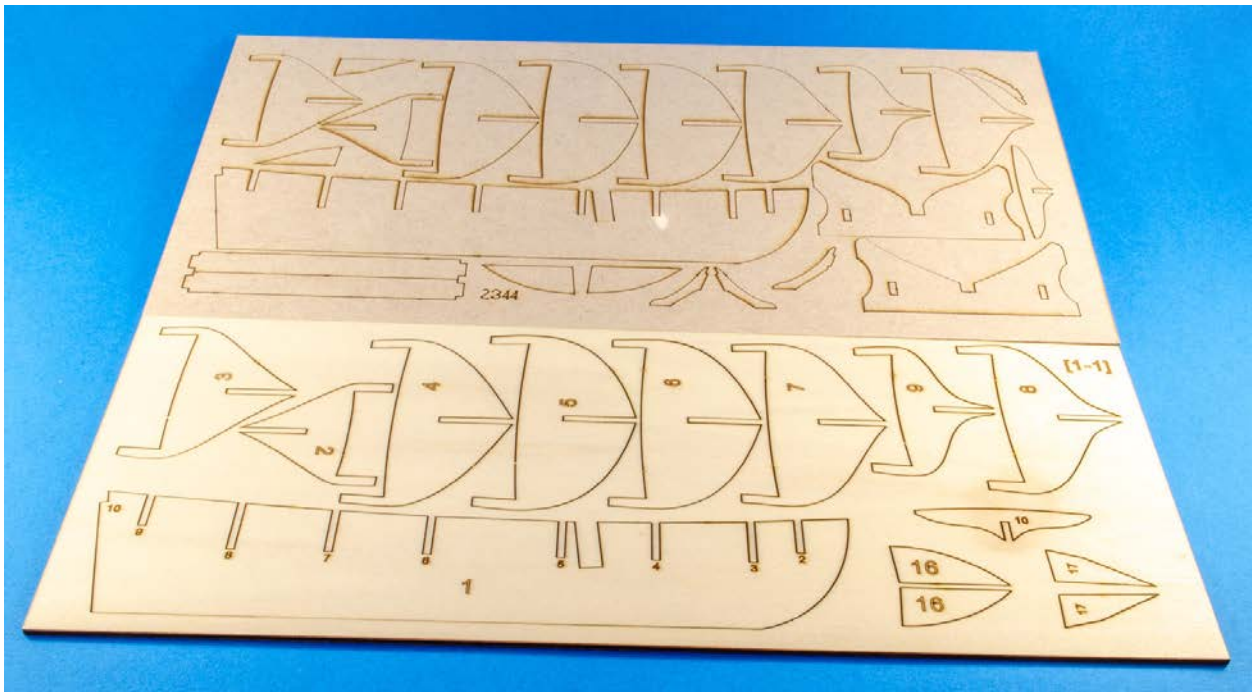
Now let's examine some photos!

## The Evidence, Part I: Kit Parts



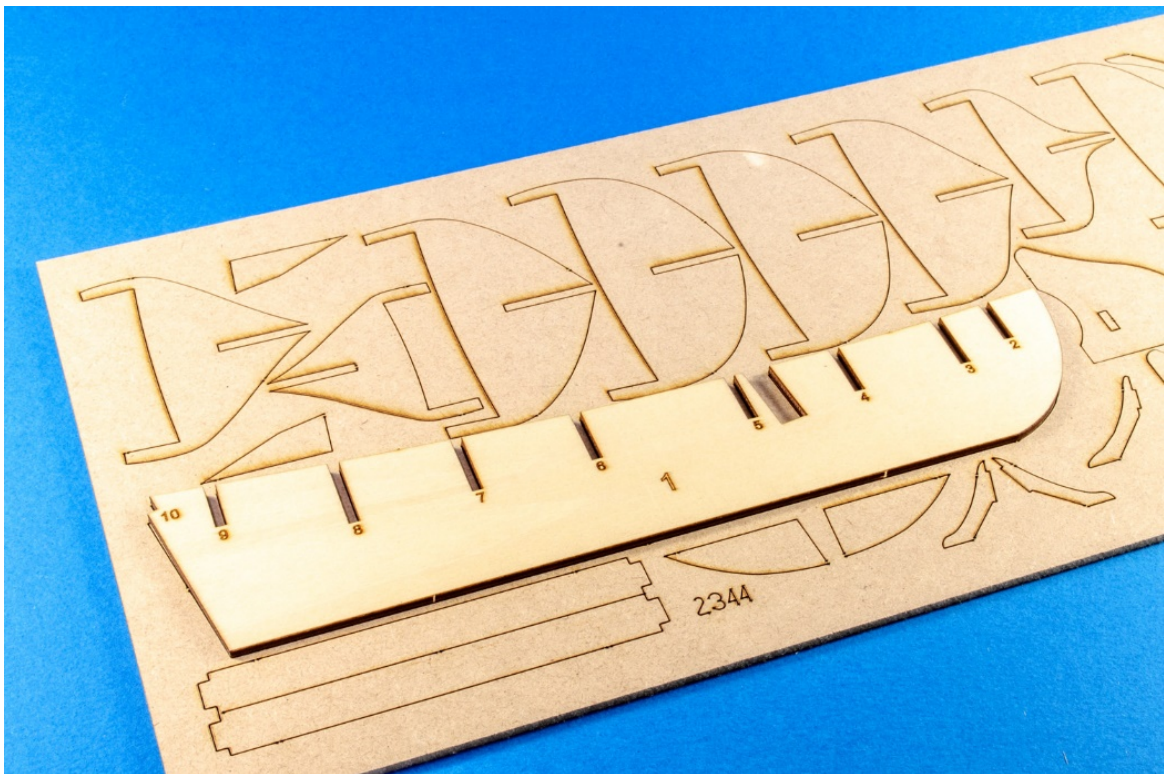
After purchasing the ZHL *Lady Nelson* from the company's website and being charged £40 for shipping and the promise of delivery within one week, the kit finally found its way to England four weeks later. The Amati kit, thankfully, arrived in a timelier fashion. In the first photo (left), you can see that yes, we do actually have both kits in our possession. There's no trickery here. We should note before we move on that this report isn't a review of either kit—their relative merits, both apart from and compared to each other, are not relevant to establishing whether one kit is a copy of the other.

A key piece of evidence in determining whether copying has occurred is found in the major structural components of each kit. Minor details, such as cast fittings or rigging line, would need to be locally sourced and would therefore not be expected to be the same in both kits. The image below shows the parts sheet from each kit containing the hull formers. The Amati billet is at the top.



Even a cursory glance suggests that the parts are at the very least extremely similar, if not identical. Bear in mind that there is no compelling reason why the internal structures of two kits of the same subject should be identical, because they are not seen once assembly is complete. Two designers working independently on a kit of HMS *Victory* should come up with models that are externally similar, because HMS *Victory* is a known and well-documented subject. But as far as internal structure goes, each designer decides for himself a myriad of details like how many bulkheads the kit should have, whether stringers will be used to strengthen the structure, and how the gun ports should be framed. This is why there are so many different models of HMS *Victory* on the market—different designers come up with different designs. Here, however, we have what appears to be two designers coming up with the *same* design, right down to the number of bulkheads in each kit (nine in each). This seems a rather unlikely coincidence, and the likelihood is further reduced when we recall that *Lady Nelson* is a fictitious ship—there was no agreed-upon look for a cutter named *Lady Nelson* until Amati introduced their kit.

Let's examine some parts from the previous photo more closely.



Here we see the ZHL hull profile former superimposed atop the same Amati part. It's now readily apparent that the two parts are identical. Not only does the ZHL profile former have the same number of bulkhead slots, those slots are also in exactly the same locations as their counterparts on the Amati part. There is no good reason to believe that two designers working independently would arrive at exactly this same internal arrangement of hull formers.

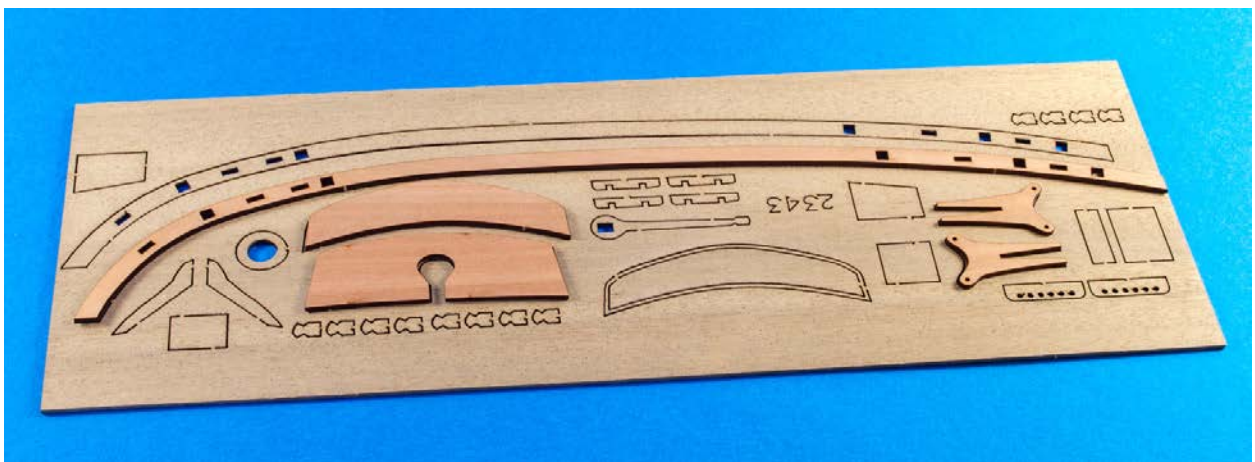


This next photo compares additional structural parts. Again, the ZHL parts are atop the corresponding Amati parts.



In the same manner as seen with the profile formers, the bulkheads (parts 2–10), filler blocks (16 and 17), and parts for the display cradle (upper left and right corners) are all identical. The filler blocks and cradle parts are particularly damning. These are commonly found in kits of every stripe, but they're not actually analogous to any real-life ship parts. They're conveniences provided for the modeler. Again, how could two designers independently arrive at exactly the same design for mere conveniences?

Next let's look at some other hull parts. Pay particular attention to the two cap rails, seen side-by-side in this next photo.



The ZHL cap rail is pierced for exactly the same number of bits and swivel gun posts, and in exactly the same locations, as those on the Amati part. Remember, the *Lady Nelson* is fictitious—there are no original plans or other sources that show or describe the locations for these features, yet the ZHL kit matches the Amati kit detail-for-detail. This same one-to-one correspondence can be seen in the parts for each kit’s keel, stempost, and rudder (below).

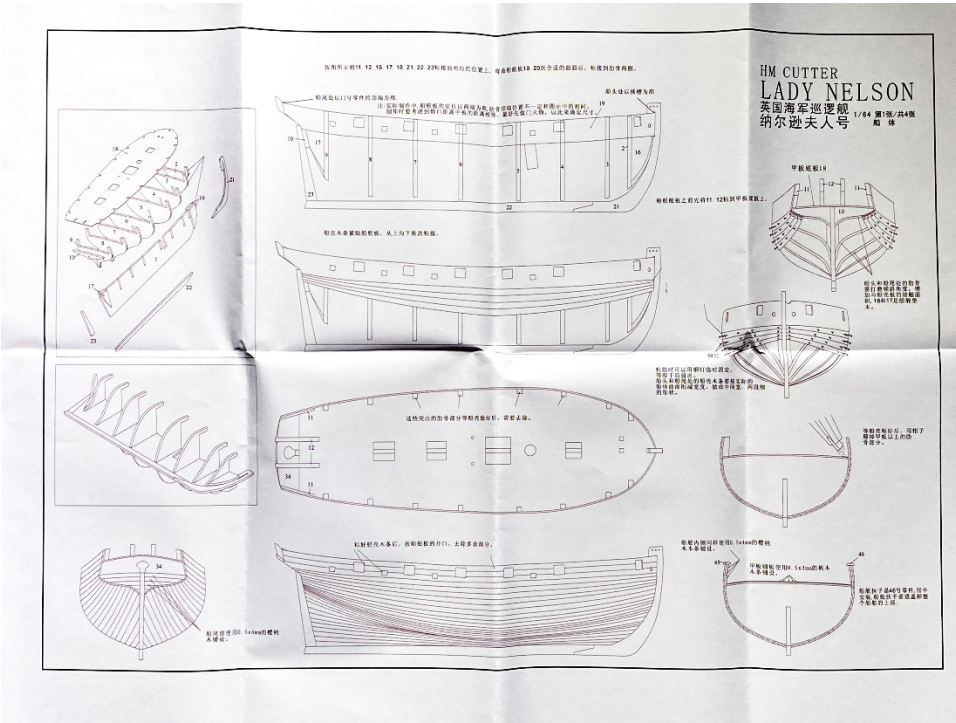
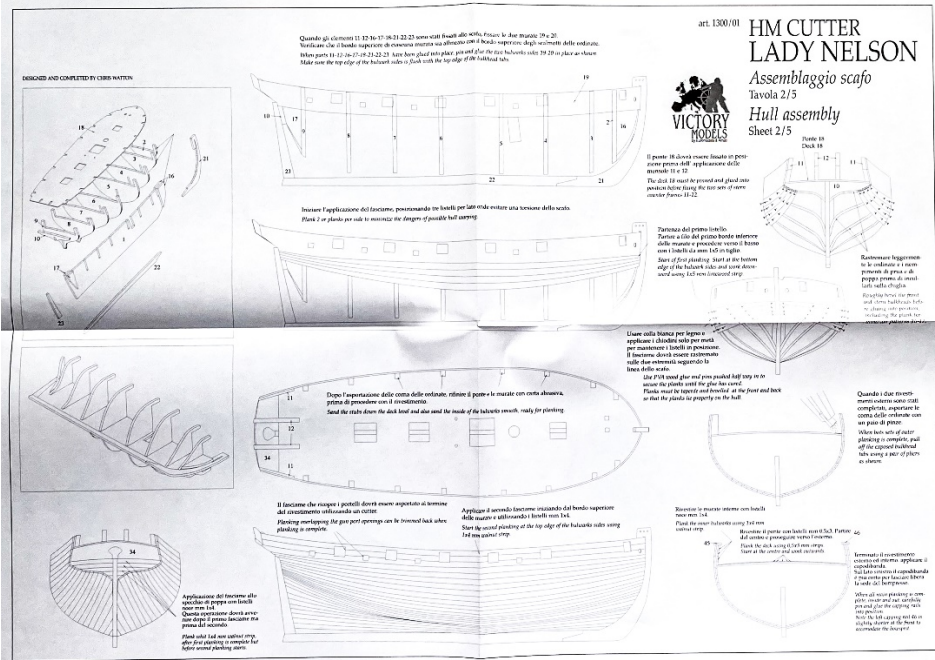


On the basis of these comparisons, no reasonable conclusion can be reached other than that of the ZHL product being an intentional copy of the Amati original. But let’s look at some further evidence.

# The Evidence, Part II: Plans

Even if someone were to cling to the possibility that two independently developed kits *might* have identical structural components, two such kits having identical plans would border on the miraculous. So, how do the plans compare? Have a look!

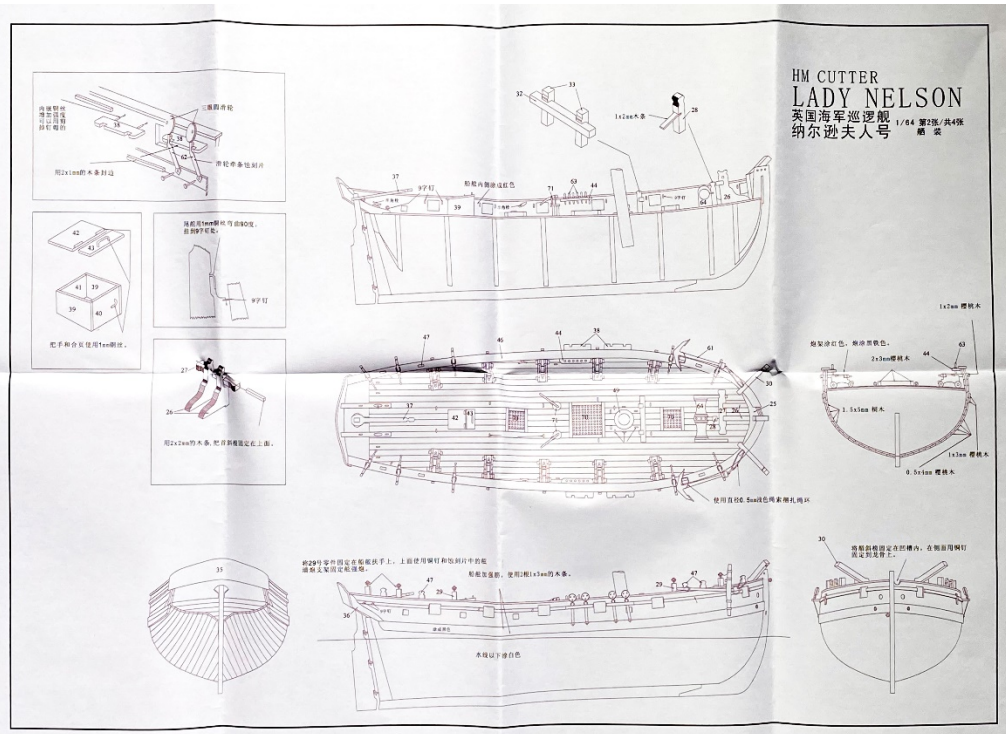
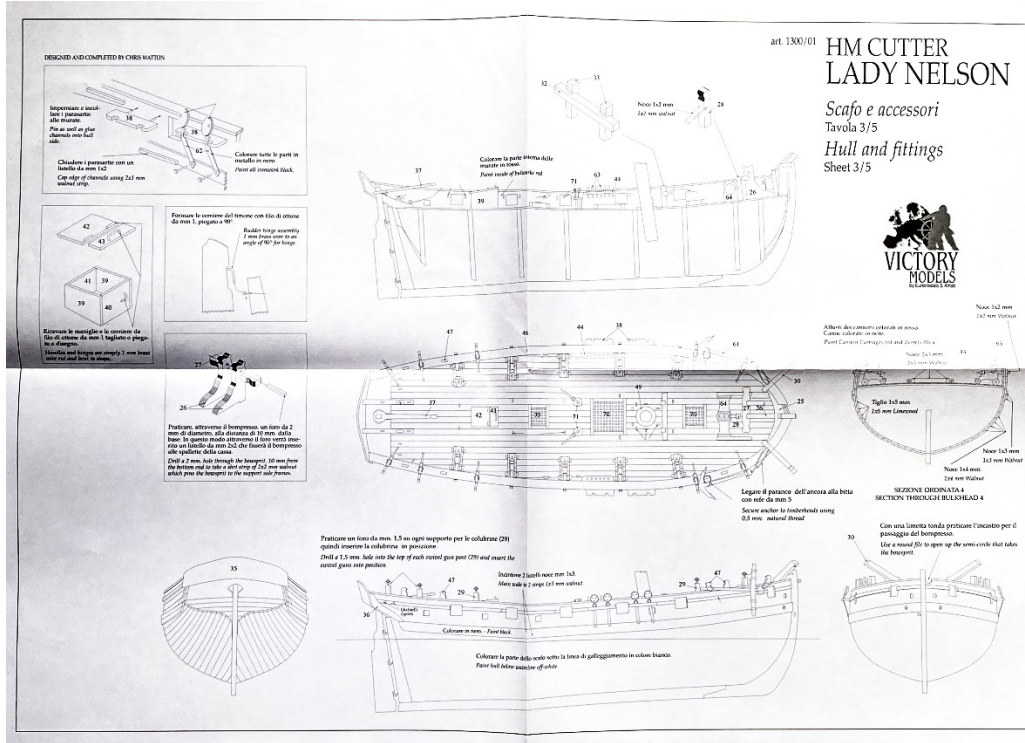
First, we'll look at the hull assembly sheets from both kits, Amati's first, followed by ZHL's.



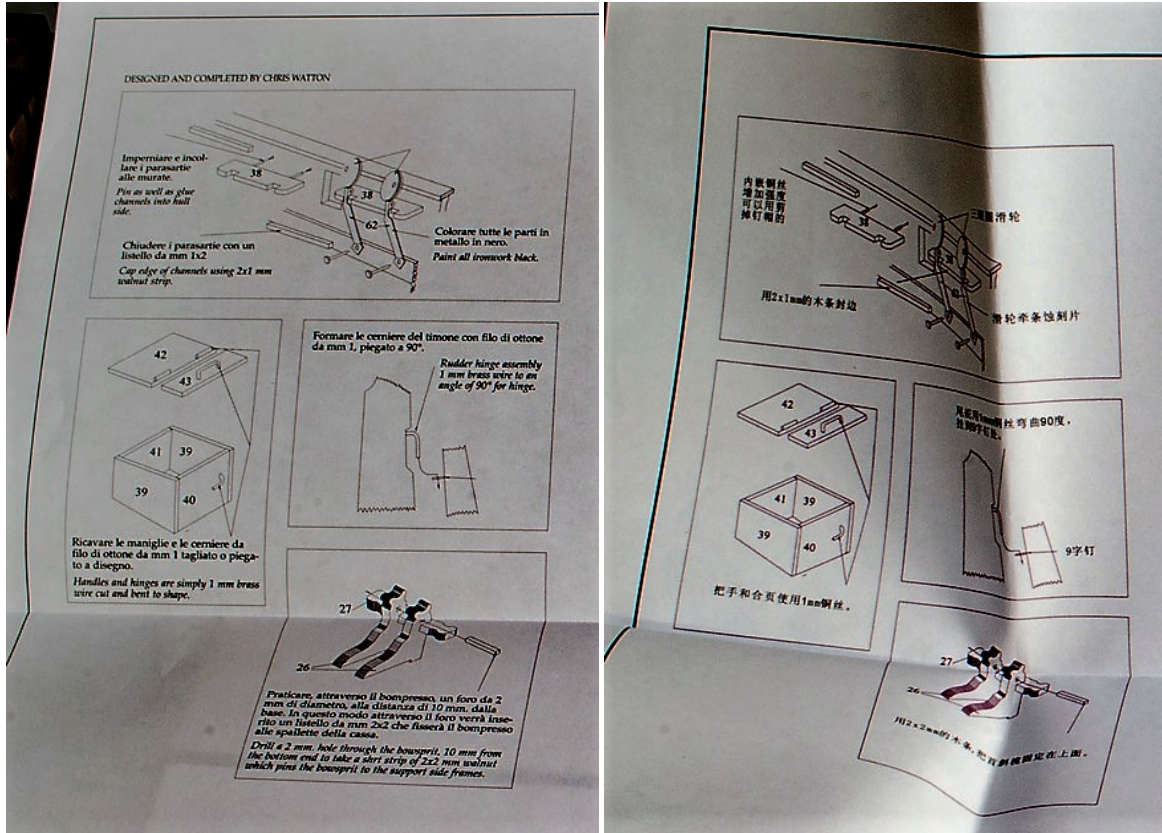


The images speak for themselves—the ZHL plan is the spitting image of Amati’s original. Let’s look at a few more, just to be certain. In each case, the Amati plan is shown first.

Hull and fittings sheets.



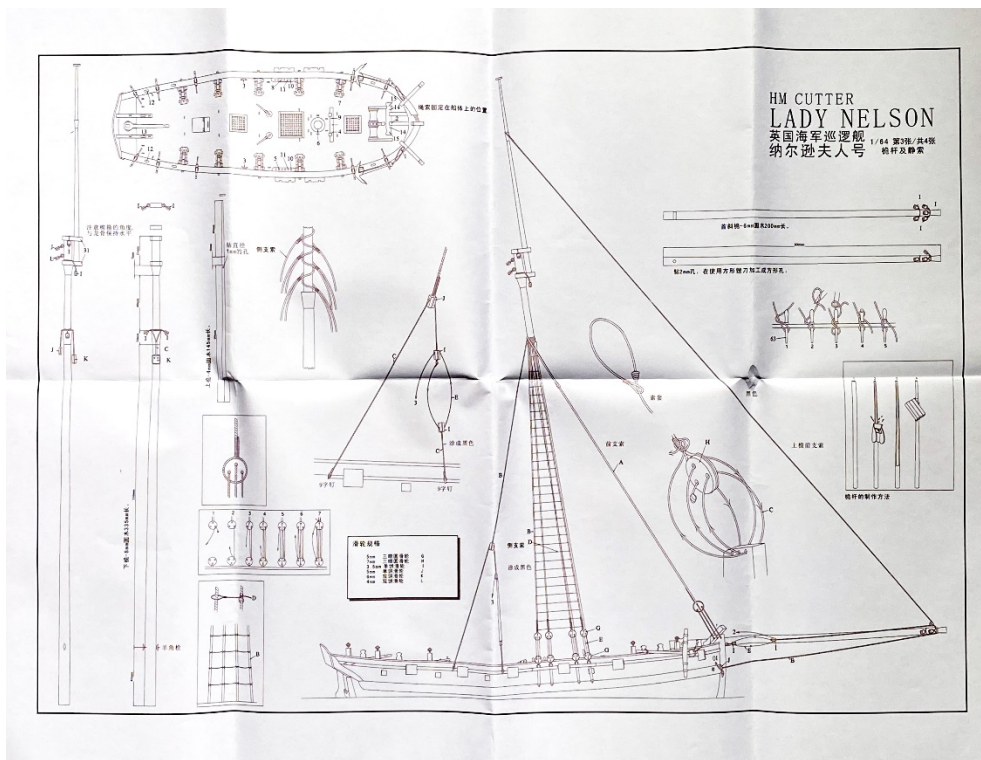
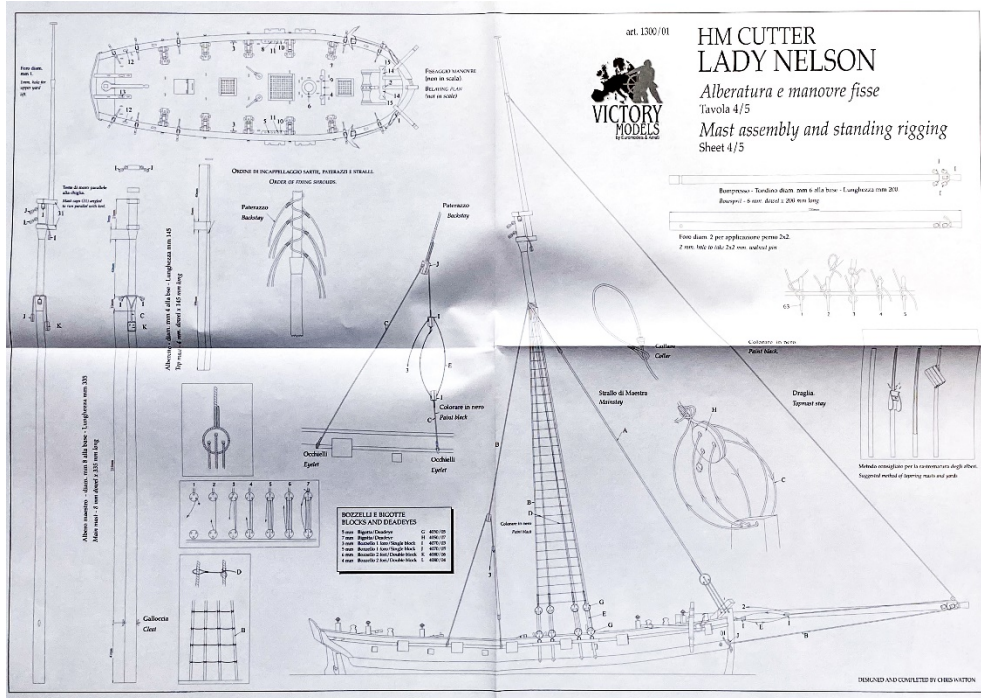
The hull and fittings sheets are worth a close-up. Take a look at these insets of deck furniture construction details in the Amati and ZHL plans:



Note that the drawings are the same—the construction details are the same, and even the parts numbers are the same. The only difference, apart from the different languages, is the deletion of designer Chris Watton's name from the copied plan.



Standing rigging.



Pay particularly close attention to the insets—they are exactly the same on both sheets.

## So—Copied or Not?

Let's be honest—the evidence suggesting that ZHL has been copying western kit designs has been pretty compelling ever since ZHL kits began turning up in western markets. This side-by-side comparison should demonstrate beyond all reasonable doubt that ZHL is guilty of intellectual property theft. Let's recap:

- *Lady Nelson* is a fictitious vessel, therefore there are no original *Lady Nelson* draughts or other resources that ZHL could have used to independently design their own kit.
- Amati were first to release a *Lady Nelson* kit, at least five years before ZHL kits were even in production. There is no way that Amati could have copied ZHL.
- In the absence of original source documents, such as admiralty draughts, there is essentially zero chance that two designers working independently would produce identical designs of the same fictitious vessel.

We can further conclude that the creative nature of Amati's design, especially given that it is a fictitious subject, suggest that ZHL may be guilty of copyright infringement as defined by law not only in the U.S. and E.U., but in China as well<sup>1</sup>. Because ZHL sells kits in both the U.S. and E.U., their kits are subject to the intellectual property protections put in place by both entities.

But what about fair use? Fair use exemptions, which are spelled out in each country's copyright laws, allow for creative works to be sampled for specific uses. An example of this would be quoting part of a novel or showing a snippet of a film in order to critique the work. The comprehensive nature of ZHL's copying sets it clearly outside the boundaries typically found in copyright laws. In the U.S., for example, ZHL's *Lady Nelson* could not be defended on the basis of any twisted understanding of fair use law<sup>2</sup>; it fails on every point used to determine whether a use of copyrighted material is fair:

1. Purpose and character of the use. (ZHL is making money from someone else's commercially successful design. Strike one.)
2. Nature of the copyrighted work (*Amati's design of Lady Nelson is a creative work. Strike two.*)
3. Amount and substantiality of the portion used (The ZHL kit copies substantial portions of the Amati kit, including the plans and shapes of the major constructional components of the model, as well as the ship's name and external appearance. Strike three.)
4. Effect of use on the market or potential market (ZHL profits from Amati's design and cuts into Amati's potential market, for which Amati receives no compensation of any kind. Strike four.)

Chinese copyright law is similar in all major aspects to U.S. and E.U. law, except that it is even more explicit about what kinds of creative works are protected by copyright. In China, copyright covers both drawings of engineering designs and model works<sup>3</sup>. The only reasonable and rational conclusion to arrive at on the basis of these laws is that ZHL and its owner engage in and profit from intellectual property theft.

## Internet Marketing and Social Media: Neutrality or Complicity?

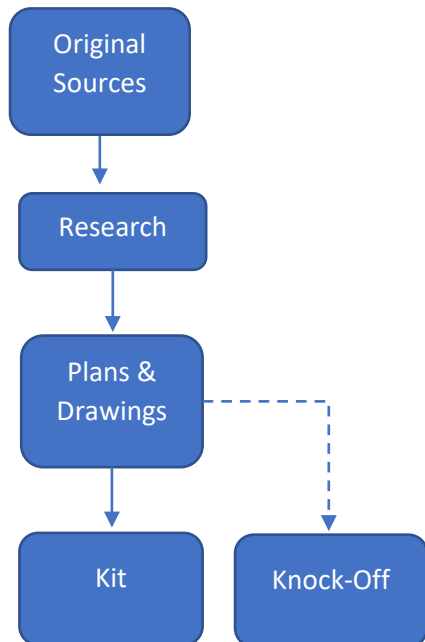
Pictorial works, such as the plans for *Lady Nelson*, are protected by Section 102(a) of Copyright Law of the United States (Title 17)<sup>4</sup>. According to Section 104(b)(1) of that same document, US copyright protection extends to treaty parties<sup>5</sup>. As an Italian firm, Amati's intellectual property is protected by agreements in place between the U.S. and the European Union. Section 106 of Title 17 grants copyright

owners the exclusive right to copy and distribute their work<sup>6</sup>. According to the definitions provided in Section 501 of Title 17<sup>7</sup>, ZHL is an infringer of Amati's copyright. That same section also forbids the distribution of illegally copied works. This means that internet sellers of ZHL kits who conduct business in the U.S. are also in violation of U.S. federal law and, by treaty agreement, in violation of EU law.

U.S. federal law does not forbid individuals to purchase counterfeit merchandise, but a compelling argument could be made that social media sites that turn a blind eye toward or even actively encourage the purchasing of knock-off kits are aiding and abetting persons and companies that *are* engaged in the distribution of illegally copied intellectual property. Such sites, whether stand-alone entities or pages at social networking sites such as Facebook, are not difficult to find, and some of them have significant footprints within the hobby. The hazard posed by these sites results from their lack of transparency on the issue of knock-off model kits, either by ignoring the issue entirely or by lending IP infringers an air of legitimacy. Newcomers to the hobby who stumble across such sites are unlikely to be properly educated about knock-off kits and may even be actively encouraged to purchase them. Thus, sites that do not actively stand against knock-off kits tend exacerbate the problem by functioning as pools of potential customers for companies like ZHL, whether intentionally or not.

### Why Does It Matter?

ZHL's website<sup>8</sup> features dozens of model kits for sale, nearly all of which are either obvious knock-offs, unlicensed kits derived from western plan sources, or suspected knock-offs. Western ship modeling concerns who have been victims of ZHL's unscrupulous copying include Caldercraft, Panart, Artesania Latina, Mantua, Sergal, Krick, Amati, Corel, Ancre, and others.



In a recent post made at Model Ship World by Nic Damuck, the owner of the U.S. model kit manufacturing firm Bluejacket ShipCrafters, Mr. Damuck mentioned that an authentic ship model kit can take 1400 man-hours to design<sup>9</sup>. That's a considerable expense that must be amortized across the production run of a kit and factored into its retail price. ZHL conveniently skips that critical part of the process (see flow chart at left). Practically every kit that ZHL produces has been the fruit of someone else's design efforts. Amazingly, there are ship modelers who call taking this illegal shortcut "competition." It should be obvious to anyone that a *fair* competition assumes that the competitors start at the same square one; in model kit design, this means that different companies begin with the same original source materials, such as admiralty draughts. The supposed "competition" represented by ZHL isn't fair, because ZHL is relying on someone else doing the heavy lifting for them. This is exactly the sort of industrial cheating that intellectual property laws are intended to prevent. This straightforward thinking should be all that is necessary to convince rational adults

of the immorality and illegality of knock-off kits, but apparently such is not the case in certain segments of the modeling community.



One ship kit designer whose work has turned up—without the required permissions, of course—in boxes bearing ZHL labels is Chris Watton, a man who needs no introduction in the world of period ship modeling. He has been designing model kits for over twenty years. He started at Caldercraft, beginning with the heavy frigate HMS *Diana*. His final design for Caldercraft produced one of the best-known kits in the hobby, a spectacular 1/72 scale HMS *Victory* that is considered by many to be the finest *Victory* kit on the market. Watton then moved on to Amati, where he designed that company's Victory Models line, which includes the extremely popular Swan-class sloops *Fly* and *Pegasus* along with the 74-gun ship-of-the-line HMS *Vanguard*, the only 1/64 scale model available of this once common type of warship. Watton now runs his own cottage business, Vanguard Models, whose first few kit offerings have been very well-received. With each successive kit, Watton continues to raise the bar on kit designing, creating models that are increasingly more realistic and easier to build.

Watton says he now works “virtually non-stop,”<sup>10</sup> holding down a day job from 1pm-12.30am Monday to Friday and spending the remainder of his time working on new developments. He does not take any money out from his Vanguard Models profits, but instead reinvests it back into his design work. Watton has characterized the knowledge that copycats like ZHL are profiting from the hard work of law-abiding designers like himself as “soul destroying.” He says, “The thought that someone will inevitably copy my new kit designs saddens me greatly, coupled with the fact that there are many modelers out there that know what is going on, but will still buy the pirated kit anyway.” The very real threat to the hobby, says Watton, “is that if people prefer to buy the pirated kits over the real thing, then in 10 years’ time there will be no kits left, as the pirates just copy and not design/develop. It is almost akin to someone working all week and a stranger then taking their wages, leaving the worker with nothing.” In other words, the efforts of ZHL and other knock-off kit manufacturers provide a strong financial disincentive for innovators like Chris Watton.

### **Final Thoughts**

For the time being, there may be little that the wooden ship modeling community can do to thwart intellectual property infringers such as ZHL. Small companies like Vanguard Models do not have the financial resources to hire the specialized intellectual property law attorneys needed to go after knock-off kit manufacturers.<sup>11</sup> For now, the best thing that wooden ship modelers can do is to band together. Says Watton, “The actions to take in the community are to educate its members of the harm piracy and IP theft does to future kit developments. A kit like the (forthcoming 1/64 scale) Amati *Victory* took me two whole years to design and develop—that is two years’ wages from Amati, and if copied, the pirates bypass this cost and all of the new thinking for designs that went into the kit development. Pirates have not earned the right to copy.” We heartily concur with that assessment.

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1. As a member of the World Trade Organization and a signatory of both the Berne Convention and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), China is obligated to honor western intellectual property laws. China’s own copyright law automatically recognizes copyright on creative works for a period of fifty years beyond the author’s death or fifty years from date of publication. See for instance <https://www.uspto.gov/sites/default/files/documents/CRS-Durham-Long-Copyright-Law-China.pdf>.

2. *ibid.* This is true under both U.S. and Chinese law. If anything, Chinese copyright law is even stricter than U.S. law regarding fair use exemptions.
3. *Ibid.*
4. <https://www.copyright.gov/title17/92chap1.html#102>
5. <https://www.copyright.gov/title17/92chap1.html#104>
6. <https://www.copyright.gov/title17/92chap1.html#106>
7. <https://www.copyright.gov/title17/92chap5.html>
8. <https://www.zhlmodel.com/>
9. <https://modelshipworld.com/topic/25143-bluejacket-css-alabama/?tab=comments#comment-736510> (post #13)
10. All quotes from Mr. Watton are taken from a personal communication of 8 Mar 2020.
11. In contrast, for example, to the Walt Disney Company, whose *Black Pearl* from the Pirates of the Caribbean franchise is a frequent target of IP thieves. But even though IP theft is a huge problem for Disney, their IP lawyers cannot possibly pursue every case.