His Britannic Majesty's 44-Gun Frigate

Indefatigable

1:64 Scale

1794

Building Manual for Hull

VANGUARD MODELS

BY CHRIS WATTON

Designed, developed and produced in the UK

Sir Edward Pellew, Lord Exmouth (1757-1833) By Sir Thomas Lawrence.
Painted in 1797, when Pellew was in command of Indefatigable

Part Number - VM/12

HMS Indefatigable History

HMS Indefatigable was one of the Ardent-class 64-gun third-rate ships-of-the-line designed by Sir Thomas Slade in 1761 for the Royal Navy. She was also the first to carry that name in the Royal Navy. She was built as a ship-of-the-line, but all of her active service took place after her conversion to a 44-gun razee frigate. She had a long career under several distinguished commanders, serving throughout the French Revolutionary Wars and the Napoleonic Wars. She took some 27 prizes, alone or in company, and the Admiralty authorised the issue of four clasps to the Naval General Service Medal in 1847 to any surviving members of her crews from the respective actions. She was broken up in 1816.

Tons burthen 1384+3⁄94 (bm)
Length 160 ft 1+1⁄4 in (48.8 m) (gundeck); 131 ft 10+3⁄4 in (40.2 m) (keel)
Beam 44 ft 5 in (13.5 m)
Depth of hold 19 ft (5.8 m) (as frigate, 13 ft 3 in (4.0 m))
Complement 310 officers and men (as frigate)

Indefatigable was ordered on 3 August 1780 (long after Slade's death), and her keel was laid down in May 1781 at the Bucklers Hard shipyard in Hampshire owned by Henry Adams. She was launched in early July 1784 and completed from 11 July to 13 September of that year at Portsmouth Dockyard as a 64-gun two-decked third rate for the Royal Navy. She had cost £25,210 4s 5d to build; her total initial cost including fitting out and coppering was £36,154 18s 7d. By that time, she was already anachronistic for the role of a ship of the line as the French only built the more powerful 74-gun ships, and was never commissioned in that role.

In 1794, she was razéed; her upper gun deck was cut away to convert her into a large and heavily armed frigate. The original intention was to retain her twenty-six 24-pounder guns on her gundeck, and to mount eight 12-pounder guns on her quarterdeck and a further four on her forecastle, which would have rated her as a 38-gun vessel. However, it was at this time that the carronade was becoming more popular in the Navy, and her intended armament was altered on 5 December 1794 with the addition of four 42-pounder carronades to go on her quarterdeck and two on her forecastle. Indefatigable was thereafter rated as a 44-gun fifth-rate frigate, along with Magnanime and Anson, which were converted at about the same time. The work was carried out at Portsmouth from September 1794 to February 1795 at a cost of £8,764. On 17 February 1795, a further two 12-pounder guns were added to her quarterdeck, though her official rating remained unchanged.

The poop was shortened to aft of the mizzen. Pellew did request the removal of the poop altogether, worried about the potential windage, and the quarter galleries replaced with quarter badges. However, the Admiralty had spent a lot of money and two years to convert the vessel, so only the poop was shortened. The masts and rig were originally that of a 50-gun ship, but this changed very early on when it was realised this arrangement made the ship too unstable, so she reverted to her original 64-gun ship arrangement, with only the lower masts shortened at the heels so that the drop of the courses would be appropriate for their cut down upperworks.
Indefatigable’s actual armament throughout most of Pellew’s command was 26x24 Pounder cannon, 18x42 Pounder carronades and 2x12 Pounder long guns for chasers. (This was certainly the configuration when she captured Virginie in April 1796). The Admiralty also twice mentions 14 quarterdeck ports (as opposed to twelve shown on the original draught). With this in mind, I altered the quarter bulwarks to reflect this for the kit.

Indefatigable was first commissioned in December 1794 under Captain Sir Edward Pellew. He commanded her until early 1799.

On 9 March 1795, Indefatigable, Concorde, and Jason captured numerous French prizes: Temeraire, Minerve, Gentille, Regeneration, and a brig and sloop of unknown names.[8] In October, the Dutch East Indiaman Zeelilee was wrecked in the Isles of Scilly with the loss of 25 of her 70 crew. Indefatigable rescued the survivors.

On 20 March 1796, Indefatigable and her squadron chased three French corvettes, of which the Volage of 26 guns ran ashore under a battery at the mouth of the Loire. Volage lost her masts in running ashore, but the French were later able to refloat her. Her two consorts Sagesse and Eclatant escaped into the river. In this action, Amazon had four men wounded.

Between 11 and 21 March Indefatigable's squadron captured the vessels Favorite Sultana, Friends, Providence, Four Marys, Aimable Justine, and Nouvelle Union. They also destroyed two unnamed brigs and a chasse maree. The vessels sharing in the prize money were: Indefatigable, Concorde, Révolutionnaire, Amazon, Argo, and the hired armed cutter Dolly and hired armed lugger Duke of York.

On 13 April 1796, Indefatigable was in pursuit of a French frigate. Pellew signalled to Révolutionnaire to cut her off from the shore. Révolutionnaire then captured the French frigate Unité after having fired two broadsides into her. Unité had nine men killed and 11 wounded; Révolutionnaire had no casualties. The Royal Navy took the frigate into service as HMS Unite.

On the morning of 20 April 1796, Indefatigable sighted the French 44-gun frigate Virginie off the Lizard. [13] Indefatigable, Amazon, and Concorde chased Virginie, with Indefatigable catching her just after midnight on 21 April after a chase of 15 hours and 168 miles (270 km). After an hour and three quarters of fighting, she still had not struck and had somewhat outmaneuvered Indefatigable when Concorde arrived. Seeing that she was outnumbered, Virginie struck.

Virginie carried 44 guns, 18 and 9-pounders, and had a crew of 340 men under the command of Citizen Bergeret, Capitaine de Vaisseau. She had 14 or 15 men killed, 17 badly wounded, and 10 slightly. She also had four feet of water in her hold from shot holes. Indefatigable had no casualties. Pellew sent Virginie into Plymouth under the escort of Concorde, and followed the next day with Amazon, which had sustained some damage. The Royal Navy took Virginie into service as Virginie.

In July 1796, there was an initial distribution of £20,000 of prize money for the capture of Unite and Virginie. Indefatigable shared this with Amazon, Révolutionnaire, Concorde, and Argo. Apparently, Duke of York also shared in some or all of the prize money. In 1847, the Admiralty authorised the issue of the Naval General Service Medal with clasp "Indefatigable 20 Apl. 1796".

On 12 June, Indefatigable, Amazon, Concorde, Revolutionaire, and Phoebe took two French brigs off Ushant – the Trois Couleurs and the Blonde (alias Betsey) – after a chase of 24 hours. Trois Couleurs carried 10 guns and a crew of 70. Blonde had 16 guns and a crew of 95 men. Each was under the command of an ensign de vaisseau and both vessels had left Brest two days earlier for a six-week cruise, but had not yet taken any prizes.

In September 1796, Indefatigable, Phoebe, Révolutionnaire, and Amazon captured five Spanish ships.

On 1 October, Indefatigable, Amazon, Révolutionnaire, Phoebe, and Jason shared in the capture of the Vrow Delenea Maria. The next day, Pellew and Indefatigable captured the privateer schooner Ariel of Boston off Corunna. Earlier, Pellew had recaptured the brig Queen of Naples, which had been sailing from Lisbon to Cork. From her, he learned that there were two privateers around Corunna, one of which had captured a brig from Lisbon with a cargo of bale goods two days earlier. Pellew immediately set off towards Corunna and was able to intercept the Ariel. She had 12 guns and a crew of 75 men. She was 14 days out of Bordeaux. Her consort, the schooner Vengeur, was of the same strength, and Pellew yet hoped to catch her, too. The brig from Bristol, however, had made it into the port of Ferrol, where Pellew had earlier chased two French frigates.

Destruction of the ‘Droits de l’Homme’, 13 January 1797. In the left centre of the picture the ‘Droits de l’Homme’ is shown running in a heavy sea, while astern of her the ‘Indefatigable’ is raking her. In the right background the ‘Amazon’ is coming up under a press of sail, so this scene shows the fight in its earliest stage. Artist: Ebenezer Colls BHC0482

In January 1797, Indefatigable and Amazon captured the packet Sangossee. On 7 January, Indefatigable and Amazon captured the Emanuel.[22] Later that month, Indefatigable fought her most famous battle.

The Action of 13 January 1797 was an engagement off the Penmarks involving the two frigates Indefatigable and Amazon against the French Droits de l'Homme, a 74-gun ship of the line. The battle ended with Droits de l'Homme being driven onto shore in a gale. Amazon also ran onto the shore; still, almost her entire crew survived both the battle and the grounding and were captured. Despite being embayed and having damaged masts and rigging, Indefatigable was able to repair the damage and beat off the lee shore, showing excellent seamanship. She had only 19 officers and men wounded, with most of those not being serious. This action resulted the award of the Naval General Service Medal with clasp "Indefatigable 13 Jany. 1797" for any crew surviving in 1847.

On 18 January Indefatigable was at Falmouth. There she saved all on board when a fire destroyed the American merchantman Indian Chief.
Subsequently, Indefatigable or Pellew's squadron took more vessels, including privateers, primarily in the Channel. Thus, Pellew reported that, on 30 April 1797, "we" captured the French brigantine privateer Basque. She was armed with eight guns and carried a crew of 50 men.
On 11 May, Indefatigable in company with Phoebe, Cleopatra, Childers, and Duke of York captured Nouvelle Eugénie. She was a razee privateer of 16 guns and carried a crew of 120 men. She was four days out of Nantes on a 30-day cruise, but had taken no prizes. The Royal Navy took her into service as HMS Eugenie.

On 21 July, the Duke of York returned, having chased a French privateer lugger into the hands of Lieutenant Bray, who commanded the Revenue Cutter Hind. Hind also recaptured a sloop that the privateer had captured. The lugger was armed with two guns and carried a crew of 25 men.

On 14 October, Indefatigable arrived at Teneriffe. There at midnight she captured the French brig corvette Ranger. Ranger was armed with 14 guns and carried a crew of 70 men. She had been carrying dispatches to the West Indies, which she was able to destroy before capture. The next day, Pellew captured a Spanish schooner carrying a cargo of fish. Indefatigable was short of water, so he put the crew of Ranger on board the schooner (though not Ranger's officers) and sent them ashore at Santa Cruz.
Ten days after that, Indefatigable captured the privateer Hyène after a chase of eight hours. She was armed with twenty-four 9-pounder guns and had a crew of 230 men. She was two weeks out of Bayonne but had not captured anything. Hyène had apparently mistaken Indefatigable for a vessel from Portuguese India. Pellew estimated that, had she not lost her foretopmast in the chase, she might have escaped. She had been the post-ship Hyaena until her capture in 1793; the Royal Navy took her back into service under her original name.

Indefatigable returned to the Channel. On 11 January 1798, she was in company with Cambrian and Childers when they captured the French privateer schooner Vengeur. Vengeur was a new vessel of 12 guns and 72 men. She was eight days out of Ostend but had taken no prizes. Pellew sent her into Falmouth.

Five days later, in the evening of the 16th, Pellew's squadron captured the French privateer Inconceivable. She was armed with eight guns and had a crew of 55 men. She was 10 days out of Dunkirk and had taken nothing. Prize money was paid to Indefatigable, Cambrian, and Success.

On 28 January, Indefatigable and Cambrian captured the privateer Heureuse Nouvelle. She was armed with 22 guns and had a crew of 130 men. She was 36 days out of Brest and, during that time, had captured only one ship, a large American vessel named the Providence which had a cargo of cotton and sugar. Pellew sent Cambrian in pursuit. Duke of York also shared in the capture.
On 30 April 1798, Indefatigable captured the brigantine privateer Basque. She was armed with eight guns and had a crew of 50 men. Indefatigable and Cleopatra captured the Hope on 11 July.
At daylight on 4 August, Indefatigable sighted the privateer Heureux together with a prize and gave chase. The two separated, with the prize heading directly for Bayonne. After a chase of 32 hours on a great circular route, Indefatigable and her quarry found themselves off Bayonne where Indefatigable intercepted the prize and captured her. The privateer was the Heureux, of 16 guns and 112 men. Her prize was the Canada, John Sewell Master, which had been sailing from Jamaica to London, having stopped in Charlestown, with a cargo of sugar, rum, and coffee. Pellew exchanged prisoners, taking off the crew of the Canada and putting on her the crew of Heureux. He then drove Canada on shore where he hoped that her cargo at least would be destroyed.

Indefatigable captured the French corvette Vaillante while cruising in the Bay of Biscay on 8 August, after a chase of 24 hours, which was under the command of Lieutenant de Vaisseau La Porte. The corvette fired a few shots before she struck. She was armed with twenty-two 9-pounder guns and had a crew of 175 men. She had left Rochefort on 1 August, and the Île de Ré on the 4th, where she had picked up 25 banished priests, 27 convicts, and a Madame Rovere and family, all of whom she was taking to Cayenne. She was only 18 months old, coppered, and a fast sailer. The British took her into service as Danae. On 15 November 1798, Indefatigable captured Mercurius.

At dawn on 31 December 1798, Indefatigable captured the Minerve, five leagues off Ushant. She was armed with 16 guns and carried a crew of 140 men. She was four weeks out of Saint-Malo and was waiting to enter Brest when captured. She had taken several prizes, one of which, the Asphalon, Indefatigable captured on 1 January 1799. Aspahalon, a Newcastle vessel, had been sailing from Halifax to London with a cargo of sugar, coffee, and tobacco. Other vessels which Minerve had captured included Martinus (Bremen brig), Tagus (Portuguese brig), Minerva (English snow), and Ann and Dorothea (aka Beata Maria, Danish schooner).

On 14 January 1799, Indefatigable recaptured Argo, Rich, master, which had been sailing from Gothenburg for Boston when a French privateer had captured her. After her recapture Argo arrived at Falmouth.
More captures or recaptures of merchantmen followed. Indefatigable, Melpomene, and Nymphe recaptured the Providence on 10 January 1799, the Pomona on 5 February, and the Wohlfarden on 9th February.

Subsequent commanders

From March 1799 until the end of 1800 Indefatigable was under the command of Captain Henry Curzon. On 31 May she captured the brig Vénus. Venus was armed with twelve 4-pounder guns and two 9-pounders, and carried a crew of 101 men. She was nine weeks out of Rochefort and had captured two prizes, the schooner Clarence, sailing from Lisbon to London, and a ship from Lisbon sailing to Hamburg with a cargo of salt. Indefatigable was apparently also in company with Fisgard and Diamond.
On 9 October 1799 Indefatigable, Diamond, Cambrian, Stag, Nymphe and Cerberus shared in the capture of the Spanish brig Nostra Senora de la Solidad. Then on 7 November Nymphe, Indefatigable and Diamond shared in the recapture of the ship Brailsford.

Then on 6 January 1800 Indefatigable shared with Defiance, Unicorn, Sirius and Stag in the capture of the French brig Ursule. On 11 February Indefatigable captured the Vidette.

On 12 June 1800, Indefatigable captured the French privateer brig Vengeur. She was armed with six long 4-pounders and ten 18-pounder carronades, and carried a crew of 102 men. She was two days out of Bordeaux and sailing for the coast of Brazil. Vengeur was sailing in company with three letters of marque – a ship, a brig and a schooner – that were bound for Guadeloupe. On 11 June Vengeur had captured the Jersey-privateer lugger Snake.[48][d] Indefatigable shared the prize money with Sirius.
On 3 July Indefatigable recaptured the brig Cultivator, from the French. Eleven days later, Indefatigable and Sirius captured the French ship Favori. The next day Bordelais (or Bourdelois) captured the

Phoenix. Indefatigable, Sirius and Boadicea shared with Bordelais by agreement, and Shannon further shared with Bordelais.

Indefatigable then was with Sir John Borlase Warren's squadron at Ferrol. She apparently did not participate in the attack on a fort at the bay of Playa de Dominos (Doniños) on 25 August 1800.
On 22 October Indefatigable, took the French 28-gun frigate Vénus off the Portuguese coast. Indefatigable had been chasing Venus from the morning when in the afternoon Fisgard came in sight and forced Venus to turn. Both British vessels arrived at Venus at almost the same time (7pm). Venus was armed with 32-guns and had a crew of 200 men. She was sailing from Rochefort to Senegal. Indefatigable and Fisgard shared the prize money with Boadicea, Diamond, Urania, and the hired armed schooner Earl St Vincent.

In January 1801 Indefatigable was under Captain Matthew Scott. Indefatigable was part of the squadron that shared by agreement in the prize money from the Temeraire, which Dasher had captured on 30 May. Similarly, the same vessels shared by agreement in Dasher's capture of Bien Aimé on 23 July 1801. Indefatigable was then paid off later that year. Indefatigable was laid up in ordinary at Plymouth in March to April 1802, as a result of the peace of October 1801.

Following the resumption of hostilities, Indefatigable was fitted out for sea between July and September 1803. She was recommissioned under Captain Graham Moore, younger brother of Sir John Moore of Rifle Brigade and Corunna fame.

On 9 August 1804 Indefatigable was in sight when HMS Nautilus recaptured the West Indiaman William Heathcote off Bayonne.

Action of 5 October 1804

Indefatigable, with Moore as commodore, and frigates Medusa, Lively, and Amphion intercepted four Spanish frigates off Cadiz under the command of Rear-Admiral Don Joseph Bustamente, Knight of the Order of St. James, on 5 October 1804. They were carrying bullion from Montevideo, South America to Spain. Spain was a neutral country at the time, but was showing strong signs of declaring war in alliance with Napoleonic France. Acting on Admiralty orders, Moore required the Spaniards to change their course and sail for England. Admiral Bustamente refused and a short engagement ensued.
First Mercedes blew up. Then Indefatigable captured Medée, and Lively captured Clara. After a further chase, Lively and Medusa captured Fama.

Medée the flagship was armed with forty-two 18-pounder guns on her main deck and had a crew of 300 men. She lost two men killed and 10 wounded.
Fama, the Commodore's ship, was armed with thirty-six 12-pounder guns on her main deck and had a crew of 180 men. She lost 11 killed and 50 wounded.
Clara was armed with thirty-six 12-pounder guns on her main deck and had a crew of 300 men. She lost seven killed and 20 wounded.
Mercedes was armed with thirty-six 12-pounder guns on her main deck and had a crew of 280 men. After she exploded, the British were only able to rescue her second captain and 40 men.

Indefatigable had no casualties. Amphion had five men wounded, one badly. Lively had two killed and four wounded. Indefatigable and Amphion escorted Medée and Fama to Plymouth. Medusa and Lively brought in Clara. The Royal Navy took Medea into service as Iphigenia and Clara as Leocadia.

The value of the treasure was very large and, if it had been treated as Prize of War, then Moore and his fellow captains would have become extremely wealthy. As it was, the money and ships were declared to be "Droits of Admiralty" on the grounds that war had not been declared. Hence the captains and crew shared a relatively small ex gratia payment of £160,000 for the bullion, plus the proceeds of the sale of the hull and cargo.

In October 1805 Indefatigable, now under Captain John Tremayne Rodd (−1809), was part of the blockade of Brest. One boat each from the ships of the line of the squadron, plus three boats each from Indefatigable and Iris entered the Gironde on 15 July 1806 to attack two French corvettes and a convoy. A change in the wind permitted all but one corvette to escape. The British captured the French corvette César (or Caesar), which the Royal Navy took into service as HMS Cesar. She was armed with 18 guns, had a crew of 86 men, and was under the command of Monsieur Louis Francois Hector Fourré, lieutenant de vaisseau. The French were expecting the attack and put up a strong resistance. The British lost six men killed, 36 wounded and 21 missing. Indefatigable alone lost two killed and 11 wounded. The 21 missing men were in a boat from Revenge; a later report suggested that most, if not all, had been taken prisoner. Most of the boats in the attack were so shot through that the British later abandoned them. The vessels claiming prize money included Pilchard and the hired armed lugger Nile, in addition to the various ships of the line and frigates. This cutting out expedition resulted in the participants qualifying for the Naval General Service Medal with clasp "16 July Boat Service 1806".

About a year later, on 19 October 1806, Indefatigable, Hazard, and Atalante captured the chasse marees Achille, Jenny, and Marianne. On 5 December 1807 Indefatigable captured the Pamelia. Then on the day after Christmas, Indefatigable and Tribune captured the American ship Eliza.

On 7 January 1808 Indefatigable and Tribune captured the French galiot Fanny and her cargo.
Then on 31 July, Indefatigable, in company with the gun-brig Conflict, captured the letter of marque Diane, which was on her way to Île de France, carrying naval stores, as well as letters and dispatches that she threw overboard during the chase. She was six years old, had a burthen of 482 tons, was armed with fourteen 9 and 6-pounder guns, and had a crew of 68 men. She had left the Gironde the evening before on this, her second voyage, to India.

On 19 August Indefatigable, still in company with Conflict, captured Adele. In December a distribution of £10,000 was payable for the proceeds from Diane and Adele. On 1 and 9 September 1808 Indefatigable captured two American ships, Sally and Peggy. Theseus and Impeteuex were in company with Indefatigable at the time. On 1 November Indefatigable captured Bonne Louise.

On 14 January 1809 Indefatigable captured French privateer lugger Clarisse in the Channel. She was pierced for 14 guns but had only three mounted. She had left Saint-Malo the evening before and had not made any captures. At the time of the capture, Amazon, Iris, Raleigh, and Goldfinch were in sight. They shared with Indefatigable in the proceeds for the hull, but not the bounty money for the captured crew.
On 20 February Statira captured the French schooner Matilda. Indefatigable was in company.
Indefatigable arrived at the Basque Roads on 25 February. While there she captured two vessels, the Danish ship Neptunus on 24 March and the French ship Nymphe on 28 March. For the capture of Neptunus, Indefatigable was in company with the sloops Foxhound and Goldfinch. Foxhound was also in company for the capture of Nymphe.

In April 1809 Indefatigable participated in the battle of the Basque Roads. The action earned her crew another clasp to the Naval General Service Medal: "Basque Roads 1809".

Battle of the Basque Roads

In October 1809 Indefatigable was under Captain Henry E. R. Baker. Captain John Broughton succeeded him in December 1809 and remained in command until 1812.

On 11 January 1810, Indefatigable captured Mouche № 26 near Cap de Peñas. Under the command of Enseigne de vausseau provisorie Fleury, she had sailed from Pasajes with despatches for Île de France. The next day Mouche № 26 foundered near the Penmarks. Fleury, presumably among others, was

drowned.

Four months later, on 6 May Indefatigable captured two French chasse marees, Camilla and Bonne Rencontre; Scipion and Piercer were in company. Next, Indefatigable recaptured Flora on 13 June. On 20 October Indefatigable re-captured the Portuguese brig Intrigua.

On 15 January 1811, Dryad captured Matilda and her cargo. Indefatigable and Lyra were in sight. Then in June 1812, under Captain John Fyffe, Indefatigable was on the South American station, where she visited the Galápagos Islands. During this cruise she gave the second largest island, now known as Santa Cruz island, its English name – Indefatigable.

By July Indefatigable was back in Portsmouth. When news of the outbreak of the War of 1812 reached Britain, the Royal Navy seized all American vessels then in British ports. Indefatigable was among the Royal Navy vessels then lying at Spithead or Portsmouth and so entitled to share in the grant for the American ships Belleville, Janus, Aeos, Ganges, and Leonidas seized there on 31 July 1812.

On 17 September Indefatigable, Hearty, Desiree, Drake, Primrose, and Cretan shared in the capture of Dankbarheide. When the gun-brig Hearty detained the Prussian vessel Friede on 29 September, Indefatigable, Desiree, Primrose, Cretan, Drake, were either in company or sharing by agreement. Indefatigable was reported to have been at Lima on 11 July 1815, about to sail for the Galápagos Islands.

Indefatigable was finally paid off in 1815. She was broken up at Sheerness in August 1816.

In Fiction

C. S. Forester chose Indefatigable under Pellew as the ship on which his fictional hero Horatio Hornblower spent most of his time as a midshipman in the novel Mr. Midshipman Hornblower. The Spanish flotilla incident is referred to by Forester in the novel Hornblower and the Hotspur. Indefatigable is featured even more prominently in the Hornblower television series.

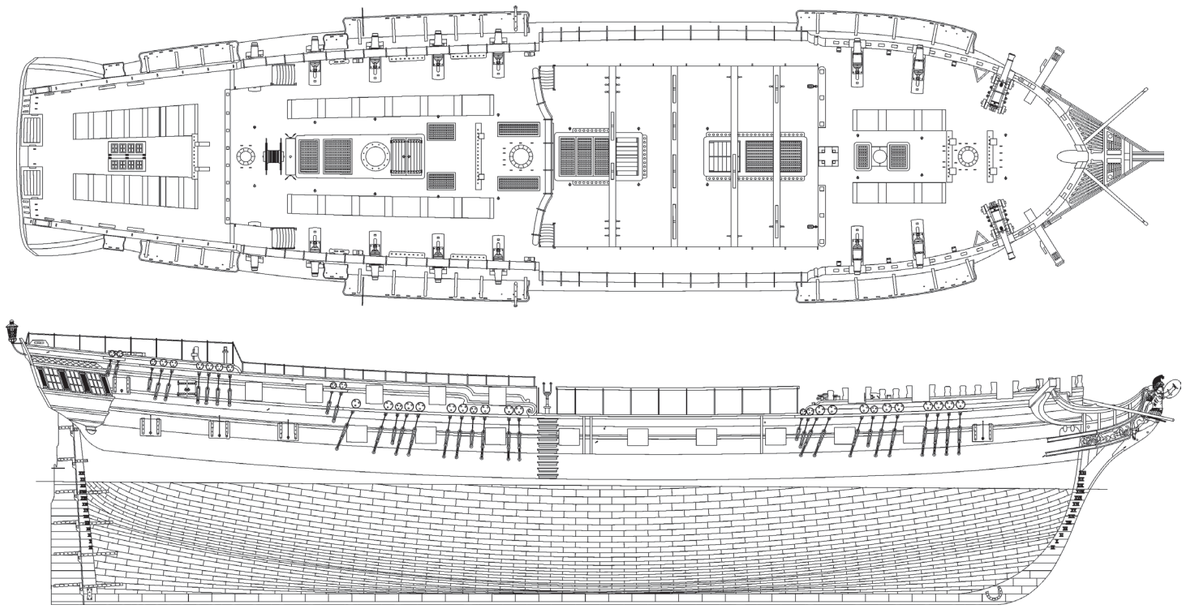
Patrick O'Brian fictionalises this Spanish Flotilla incident in Post Captain, the second of his Aubrey–Maturin series of novels. In this novel, Captain Aubrey is in temporary command of HMS Lively, one of the other ships in the British squadron under the command of Moore. Also mentioned in “The Yellow Admiral" with reference to being cut down from a two-decker

References

Colledge, J. J.; Warlow, Ben (2006) [1969]. Ships of the Royal Navy: The Complete Record of all Fighting Ships of the Royal Navy (Rev. ed.). London: Chatham Publishing. ISBN 978-1-86176-281-8.
Fonds Marine. Campagnes (opérations ; divisions et stations navales ; missions diverses). Inventaire de la sous-série Marine BB4. Tome premier : BB4 210 à 482 (1805–1826)
Gardiner, Robert (2006) Frigates of the Napoleonic Wars. Chatham Publishing, London. ISBN 1-86176-292-5.
Lavery, Brian (2003) The Ship of the Line – Volume 1: The development of the battlefleet 1650–1850. Conway Maritime Press. ISBN 0-85177-252-8.
Roche, Jean-Michel (2005). Dictionnaire des bâtiments de la flotte de guerre française de Colbert à nos jours. Vol. 1. Group Retozel-Maury Millau. ISBN 978-2-9525917-0-6. OCLC 165892922.
Winfield, Rif (2008). British Warships in the Age of Sail 1793–1817: Design, Construction, Careers and Fates. Seaforth. ISBN 978-1-86176-246-7.
Winfield, Rif; Roberts, Stephen S. (2015). French Warships in the Age of Sail 1786–1861: Design Construction, Careers and Fates. Seaforth Publishing. ISBN 978-1-84832-204-2.
Wikipedia

Buckler’s Hard, originally called Montagu Town, was built by the second Duke of Montagu, and was intended to be a free port for trade with the West Indies. Its geography also favoured the development of shipbuilding, as the hamlet possessed access to a sheltered but navigable waterway with gravel banks capable of supporting slipways for vessel construction and launch. Timber for hulls was also readily available from the surrounding New Forest.

Buckler’s Hard grew to national prominence under Henry Adams and won subsequent Royal Navy contracts. Over the following sixty years, Adams would supervise the building of 43 Royal Navy ships at Buckler’s Hard, including three that fought at the Battle of Trafalgar in 1805: HMS Euryalus, HMS Swiftsure, and HMS Agamemnon (a sister to Indefatigable). The two main shipbuilders associated with the shipyard are Henry Adams and from 1783 his son Balthazar Adams.
The three recent photos above show the old slipway where Indefatigable was built and launched, before moving to Portsmouth to be cut down to a razée frigate.



Notes on building our kit

The model kit is designed to be as accurate as possible for a commercial kit in both scale and detail and has been developed with the advanced modeller in mind. We cannot advocate such a build for anyone who is only on a learning journey or never built a ship before. By advanced, we mean for modellers who have built numerous other ships/boats and mastered many of those skills required to succeed with a ship kit of this complexity. HMS Indefatigable has been designed to be as intuitive and absorbing as a model kit can be, at all stages of construction. An eye for detail is required at all stages, despite us planning the sequence to be as logical as it can be.

A reasonable sized workspace will need to be put aside for the assembly as Indy is quite a large size. Do not remove parts from the laser cut sheets until required for fitting, as they can be easily damaged or lost. With a model of this complexity, that is most definitely the best strategy.

Take plenty of time to study this manual until you are confident enough to tackle each stage of construction. Patience is the key word when building any scale model. Treat each stage as a separate project and the overall effect of the completed subject will be much more enhanced.

Care should be taken when cutting parts from the laser and brass etched sheets. The sheet from which you are going to cut the parts should be laid on a hard, flat surface. Use a heavy-duty craft knife (a Stanley Knife or Swann Morton scalpel are perfect) with a good strong blade to cut through the tabs holding the parts in place. It is easier to paint/prime most of the photo-etched parts before removing them from their sheets. They can be touched up again once in place on the model.

When painting parts in wood, use multiple coats with fine sanding in-between each coat to help minimise the grain visibility. Never settle on just a single coat but take your time with every single sub assembly. As much of the outside of this model is under the black/ochre paint scheme, we advise the use of sanding sealer coats in preparation for paint.

Recommended tool list

(All items listed were used to build the HMS Indefatigable prototype model)

1: Craft knife (or standard Stanley Knife, which is robust enough for most jobs)
2: A selection of needle files
3: Razor saw (We recommend a slim one that can be mounted into an X-Acto handle)
4: Small wood plane (for rough tapering of masts and yards before sanding smooth)
5: Pin vice or small electric drill.
6: Selection of drill bits from 0.5mm to 1mm
7: Selection of abrasive paper and sanding block (typically 120 – 400 grade)
8: Selection of good quality paint brushes
9: Pliers/wire cutters (Good quality side cutters are excellent for trimming rigging ends)
10: Good quality set of fine tweezers (For small parts and rigging)
11: Steel ruler (300mm - for providing a straight edge for tapering the planking)
12: Clothes pegs or small clamps
13: Good quality pencil or drawing pen
14: Masking tape (Tamiya or Tesa masking tape are highly recommended)
15: Waterline marking out tool, such as the one from our web store.
16: A Pin Pusher (Or you can just use a pair of pliers to push pins into the planking and bulkhead edges)
17: Cutting mat
18. Palm sander (mouse) with 80 grade grit pads

Although not strictly required, access to a lathe would be very beneficial for turning the upper masts and yards, although the yards are easily tapered using a small wood plane and abrasive paper to smooth the surface.

Paints, stains and adhesives

1: White PVA wood glue or Titebond.
2: Cyanoacrylate (superglue) gel.
3: Natural colour wood filler.
4: Matt polyurethane varnish (Not satin or gloss)
5: Light grey or white wood primer (brush applied)
6: Black and Ochre paints for the main scheme. Check our website for suitable colours.
7: Red paint for inner bulwarks. Check our website for suitable colours.
8: Spray Mount glue for gluing thin laminate areas (bulkhead screens, channel facings etc.)

Warning!

It is recommended that a facemask is used whilst sanding any timber and MDF, and also if spraying paint in a confined area. You get one set of lungs, so protect them! Safety glasses are also recommended if you are using a rotary sanding tool.

IMPORTANT:

HMS Indefatigable is an ‘Master Level’ kit, and even though we need to assume that a modeller’s skills will match this, we must reiterate that you should READ THE TEXT that accompanies each photo and not just work to a quick glance at a photo. Very often, the text will indicate something critical to a stage that you will need to look more closely at the photo to see. Not following chronology in sequence may cause problems with subsequent building stages, and we cannot be held accountable for that.

Recommended tools from Vanguard Models

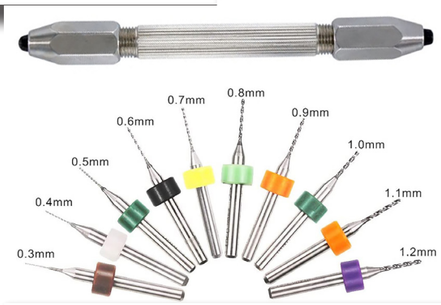
Our waterline marking tool is supplied in a sheet of laser-cut, 4mm plywood that needs assembly. Assembly time is around 15 minutes and very easy. Metal fittings are supplied to aid the change in position of the pencil carriage. Vanguard Models pencil is supplied with each tool.

The Waterline Marker will mark a level from between 25mm to 150mm, and an engraved gauge will help you achieve the correct level.

Pin Pusher With Adjustable Depth Stop

This is a slightly larger version of our other pin pusher, and has the added advantage of an adjustable depth stop to ensure that all pins are pushed ‘home’ to the same depth. It is ideal for model boat/ship hull planking, and setting miniature n-gauge rail track on to board, or for nailing tasks on wooden boat models, dolls houses and picture frames.

Pocket sized Pin Pusher
Can push pins in to 9 mm of plywood or MDF
Ideal for pushing brass pins
Nailing, pin pushing or riveting can be frustrating if the wrong type or an oversized hammer is used. Not to mention the dangers involved. Small pins and nails should be driven in using a precision tool rather than a regular DIY hammer. Pin pushers will make inserting small panel pins and nails a breeze and virtually eliminate sore thumbs!



Pin Vice and Drill set

Pin Vice – Double Ended (0 – 2.9mm)
Handy holder for drills, taps, pins etc. Including: 2 reversible collets, with capacities 0-1.2mm, & 1.3-2.4mm and 0.8-2.0mm, & 1.8-2.9mm. Incorporating an Anti-roll 6-sided body.

Drill bits
Our Drill Bits are made of high quality tungsten steel, have high wear resistance, precision, and are beautifully sharp. This Set contains 10 different size drill bit diameters: 0.3mm, 0.4mm, 0.5mm, 0.6 mm, 0.7 mm, 0.8 mm, 0.9 mm, 1 mm, 1.1mm, 1.2mm.

These are great for modelling, with them being suitable for wood, plastic, metal, acrylic and numerous other materials.

The drill are presented in size-order in a high quality plastic box which prevents any damage when not in use.

This plank bending tool is the ideal boat modeller’s tool for the bending strips to the desired curvature. Used for perfect and precise bending of all wooden strips, such as planking on model boats up to 2mm thickness. For bending at an angle, change the cutting angle and the plank will ‘spiral’. The more cuts produced the tighter the bend. Includes a plastic blade stopper.

Ideal for bending planking strips to the desired curvature
Modelcraft Plank Bending Tool Kit 220-240v, 30w

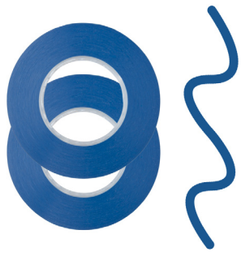
•The Plank Bending tool is ideal for bending planking strips to the desired curvature
• The rounded head on the tool should be warmed up and the wooden strip should be placed on the wooden template form. The strip is then heated by running the tool head over it a few times until the required curve is achieved.
• It works on dry strips with a maximum thickness of 1mm
• For thickness over 1mm, the strip must be dampened
• Set includes: Tool with a rounded head, tool stand & wooden template form.
• Use with caution as parts will be hot

We offer a full paint set with colours specifically chosen for period ships, and Indefatigable in particular, with colours used for painting the prototype model.

The set includes:

• OCHRE – STANDARD x 4 bottles – Hull Sides, lower masts and other details
• OFFWHITE - STANDARD x 1 bottles – Inner bulkheads for cabins, Cabin beams and figure detail
• SMOKE BLACK - STANDARD x 2 bottles – Cannon barrels, chimney and anchors
• BLACK - INTENSE x 4 bottles – Hull sides, yards and masts
• MATT RED – STANDARD x 2 bottles – Inner bulwarks and fittings, including cannon carriages
• IMPERIAL BLUE – STANDARD x 1 bottles – Beakhead bulkhead, upper outer side detail
• GOLD – METALLIC x 1 bottles – Decoration and figure detail
• COPPER – METALLIC x 1 bottles – Ships stove condenser and touching up copper bottom
• ARCHAIC TURQUOISE – STANDARD x 1 bottles – Side frieze background colour
• RLM 65 (1938) – AIR x 1 bottles – Alternative great cabin colour

The AK-Interactive Third Generation acrylic paints chosen for this set are the most sophisticated formula for acrylic paints so far. Excellent coverage, superb grip and no clogs when airbrushing. You can use ordinary tap water or use its specific thinner (AK11500) when airbrushing to obtain the best results and maintain the properties of the paint.



Flexible Masking Tape x2

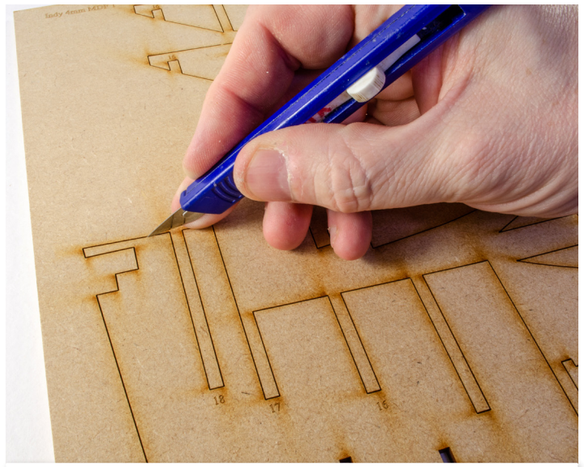
This is available in TWO sizes, and there are two rolls in each packet.

3mm wide x 18m long
6mm wide x 18m long
Absolutely ideal for masking hull waterlines! These masking tapes are also ideal for general modelling, airbrushing, arts, crafts, and even those smaller DIY tasks. The tape sticks, stays and removes cleanly. This flexible acid-free tape is designed to follow curved lines and contoured surfaces without creasing, tearing or paint bleed.

Spring-Loaded Finger Sanders available in 4 sizes, 10mm, 20mm, 25mm, 40mm (Medium Grade)
Unique shape for flat and curved surfaces
Easy to fit band with spring mechanism

These sanders have a unique shape for working on both flat and curved surfaces and come with pre-fitted medium sander band. The sanders also have an ergonomic shape meaning that they're comfortable when in use.

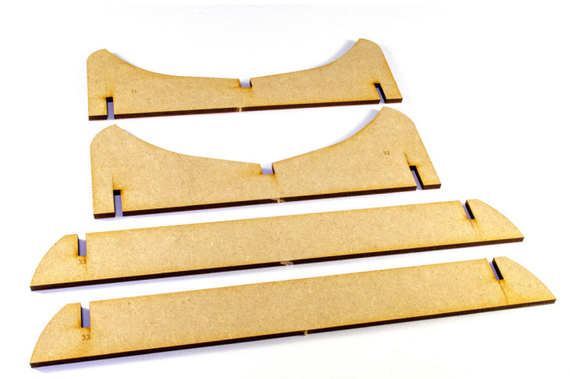
HULL ASSEMBLY



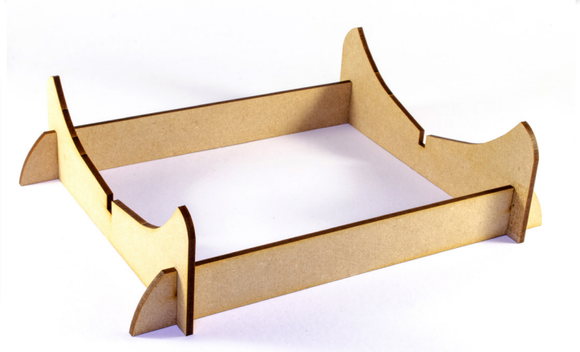
1. Use a strong, sharp knife for removing parts from the various sheets. We recommend either a good scalpel (such as Swann Morton) or a Stanley Knife. Always remove parts while laying the sheet on a flat, protected surface like a cutting matt.

2. Every part you remove will have the remnants of the connecting tag. Remove this by either sanding it away or trimming with a knife.

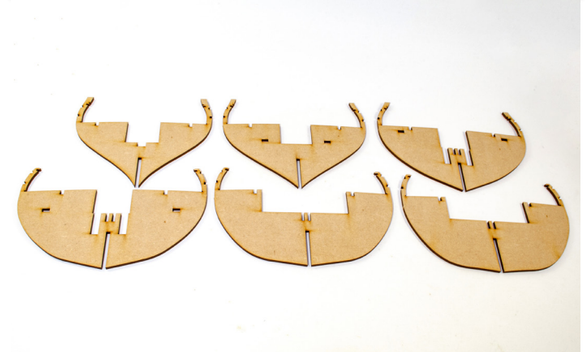
3. We always recommend a good quality glue for building, and that especially applies to something the size and value of HMS Indefatigable. For our prototype, we used Titebond 3 and Gorilla Glue CA gel, for their trusted quality. Whatever you buy, don't use a cheap glue. Cheap price usually indicates poor quality.



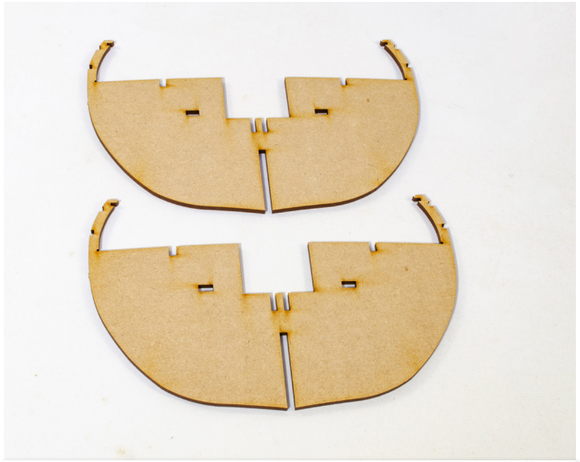
4., We now need to build the temporary building cradle. This will only be used for the duration of the project and then it will be disposed of in favour of the acrylic stand. From the 4mm MDF sheet, remove parts #31, #32, and both parts #33.



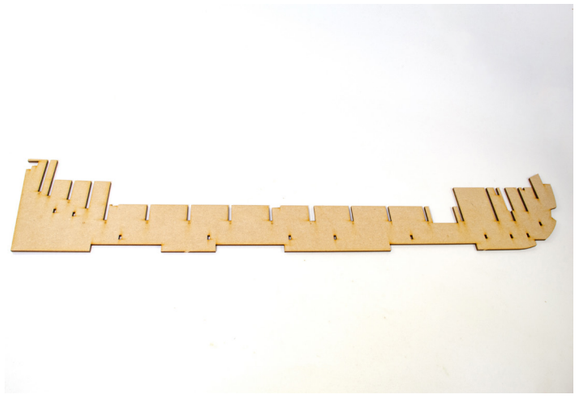
5. This is very self-explanatory. Both parts #33 fit into either end of the fore and aft cradle sections. Part #31 is the aft cradle section, and part #32 is the fore. You can glue these if you wish, but you'll find that they are a good squeeze fit anyway.



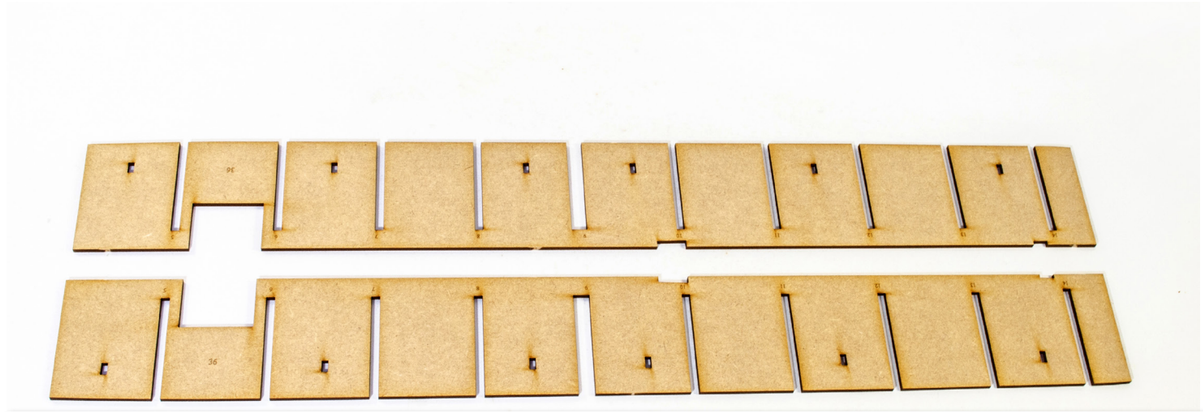
6. From the 4mm MDF sheet, remove bulkheads #3, #4, #5, #6, #7, and #8. Please be careful with the bulkhead ears. These are reasonably strong, but clumsy handling or droppage could easily break them off.



7. Also remove bulkheads #9. You'll notice there's two of these. These are both needed.



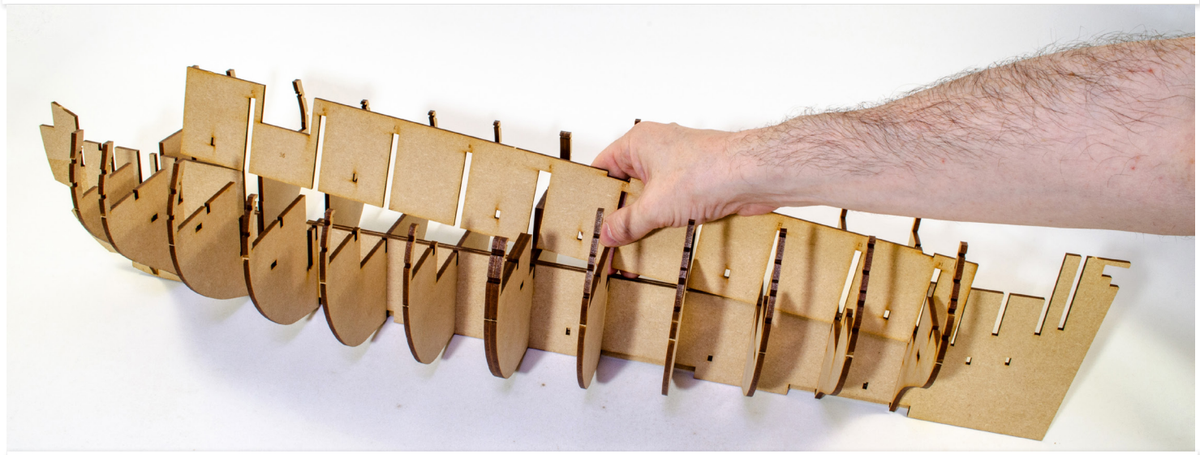
8. You'll now get a rough taster of how large the hull on Indefatigable is. From the 4mm MDF sheet, remove part #0. This is the keel.



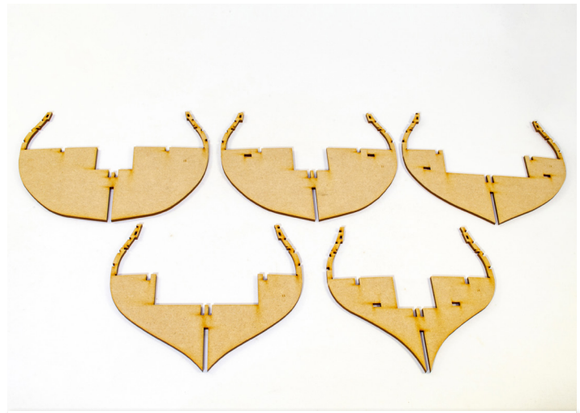
13. From the 3mm MDF sheets, remove both parts #36. Note how the slots in these are numbered. These refer to the individual bulkheads over which each slot will fit.

9. You will notice that the keel has its slots numbered. These numbers relate to the bulkhead that will eventually fit there.

10. Slot all of the bulkheads from #3 thru to #9, into their respective keel slots. IMPORTANT: DO NOT GLUE.



14. Carefully slot parts #36 on each side of the keel. These will fit snug against the keel, using the innermost bulkhead slots. Make sure that each slot number and bulkhead match. Again, do NOT glue anything.

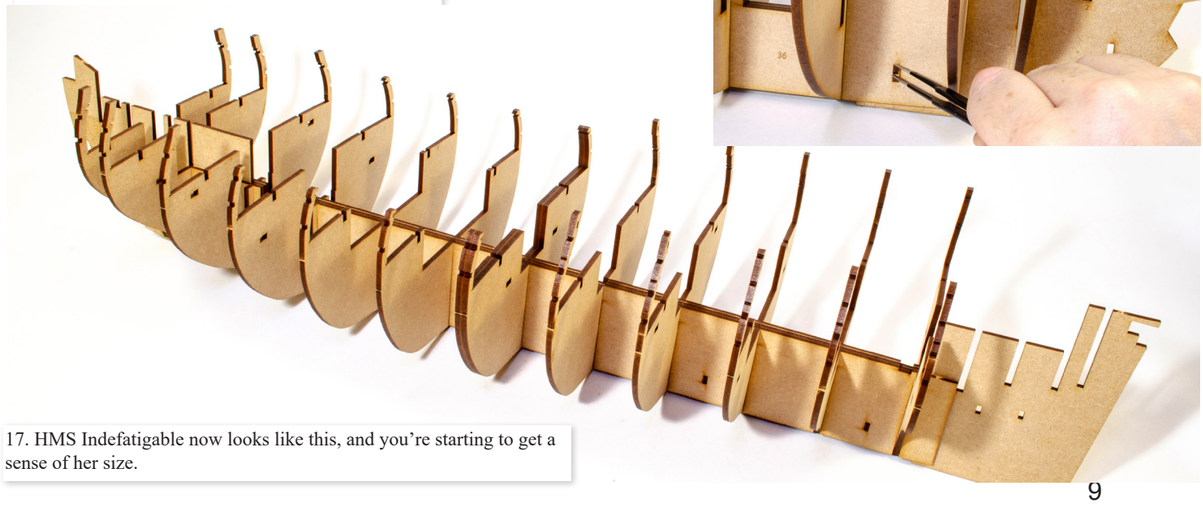


11. From the 4mm MDF sheet, remove bulkheads #10, #11, #12, #13, and #14.

12. Now slot these into their respective slots on the keel. Again, do NOT glue.

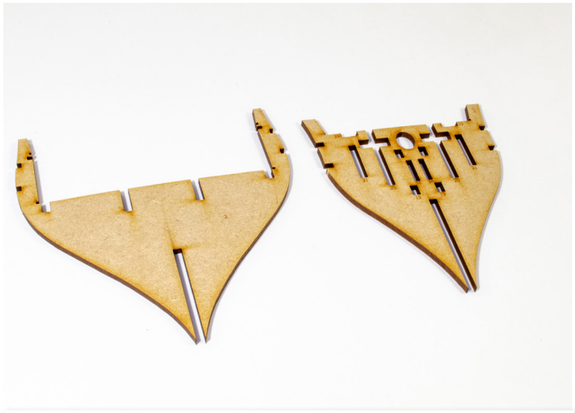
15. From the 3mm MDF sheet, remove the pegs K-1.

16. Glue the pegs into the holes that pass all the way through the keel assembly. This now effectively locks the bulkheads firmly into position, so they won't drop out.



17. HMS Indefatigable now looks like this, and you're starting to get a sense of her size.

22. Glue pegs K-1 through the keel to lock bulkheads #15 and #16 permanently. You can now remove bulkhead #17 until a little later.

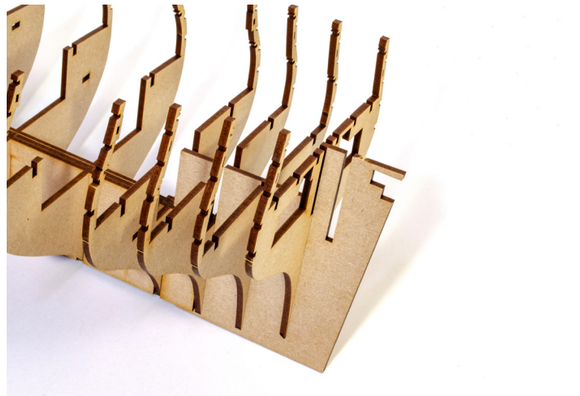


23. From the 4mm MDF sheet, remove bulkheads #1 and #2.

24. Slot these onto the keel. Do NOT glue.

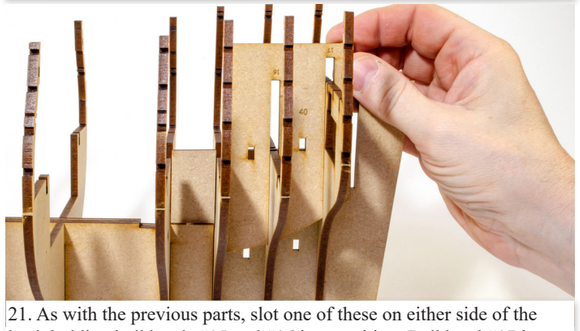
25. From the 3mm MDF sheet, remove parts #37,#38, and #39. There are two of each.

18. From thee 4mm MDF sheet, remove bulkheads #15, #16, and #17.

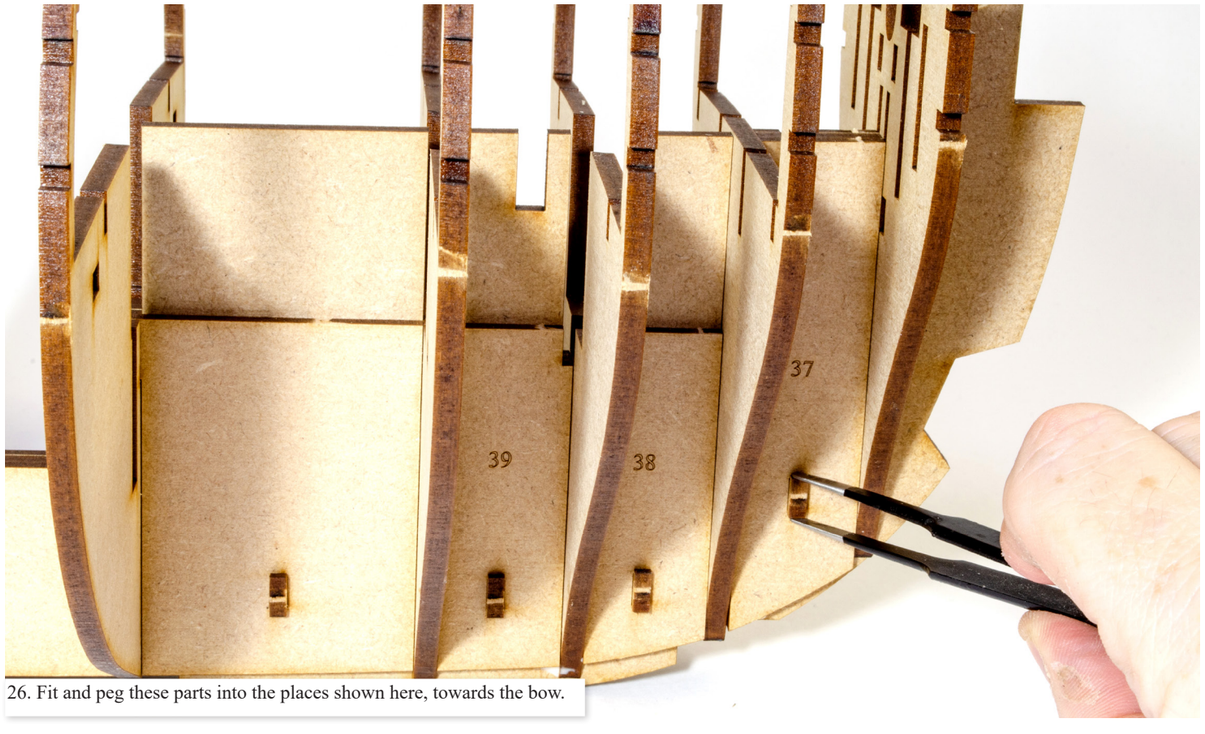


19. These can now be slotted into the keel. Again, do NOT glue.

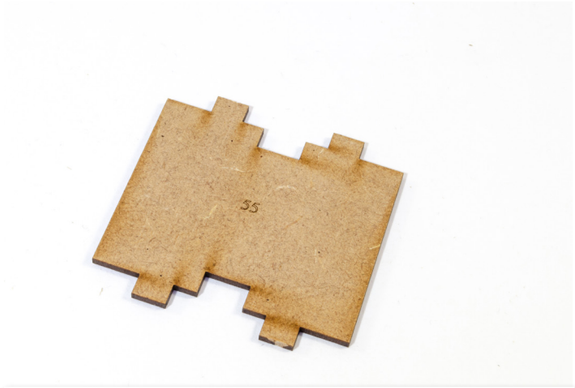
20. From the 3mm MDF sheets, remove both parts #40. You will see the bulkhead slot numbers here too.



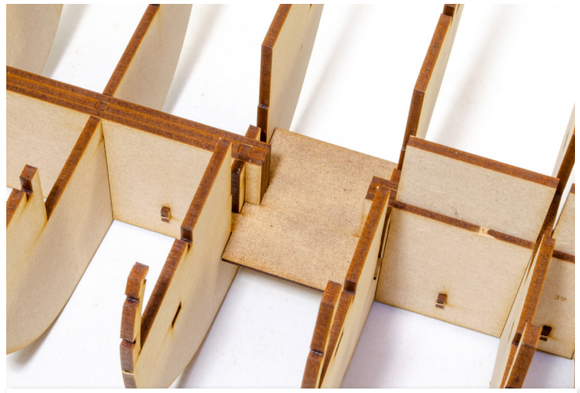
21. As with the previous parts, slot one of these on either side of the keel, holding bulkheads #15 and #16 into position. Bulkhead #17 is only there at the moment to ensure correct positioning of the current parts.



26. Fit and peg these parts into the places shown here, towards the bow.

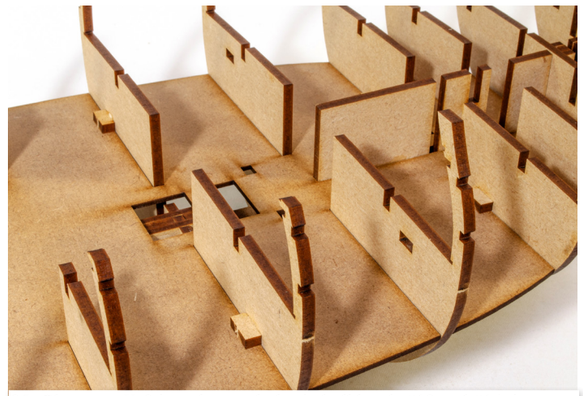


27. From the 2mm MDF sheet, remove part #55. This actually represents a very small section of the lowermost deck, the orlop.

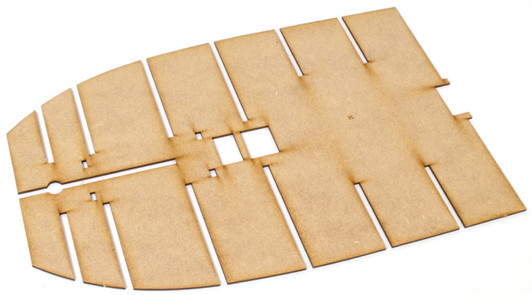


28. Glue this part into place as shown here, between bulkheads #5 and #6.

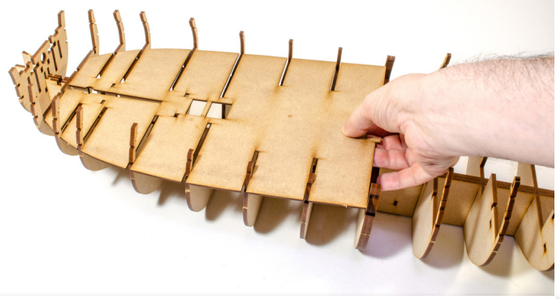
34. From the 4mm MDF sheet, remove pegs K-3.



35. Glue pegs K-3 into the two holes in bulkheads #12 and #14, just above the height of the 2mm MDF sub-deck. This will hold the that deck section in place.



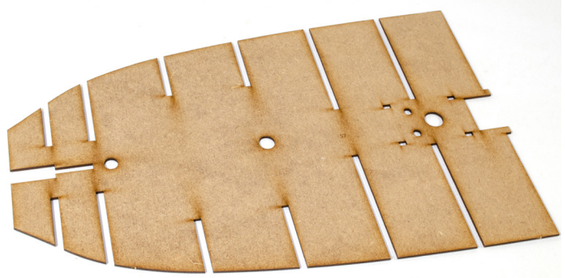
29. From the 2mm MDF sheet, remove part #56. This is the sub-deck which slots into the forward half of the hull.



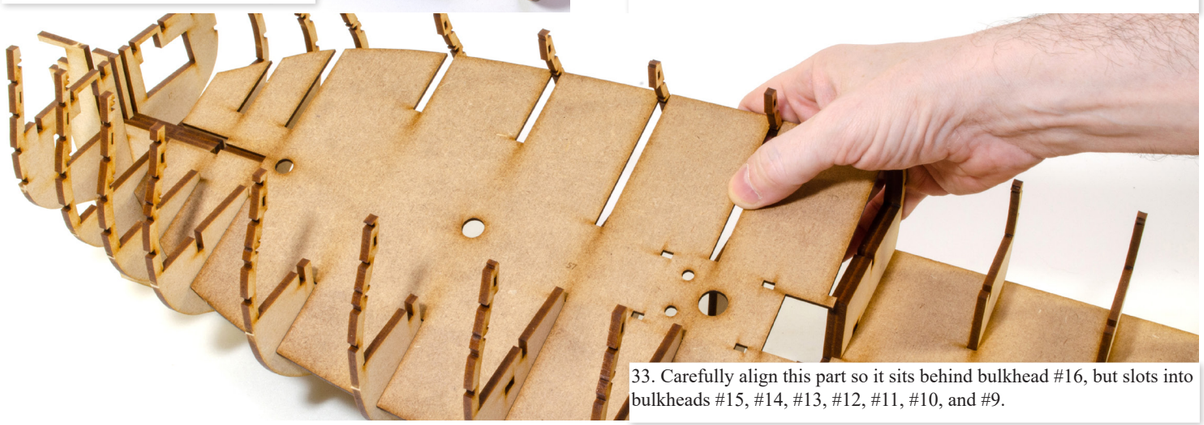
30. Carefully align this part so it sits behind bulkhead #2, and slots into bulkheads #3, #4, #5, #6, #7, #8, and #9. Do NOT glue for the moment.

36. Also glue pegs K-3 into the slots on bulkheads #4 and #6, just above the height of the 2mm MDF sub-deck.

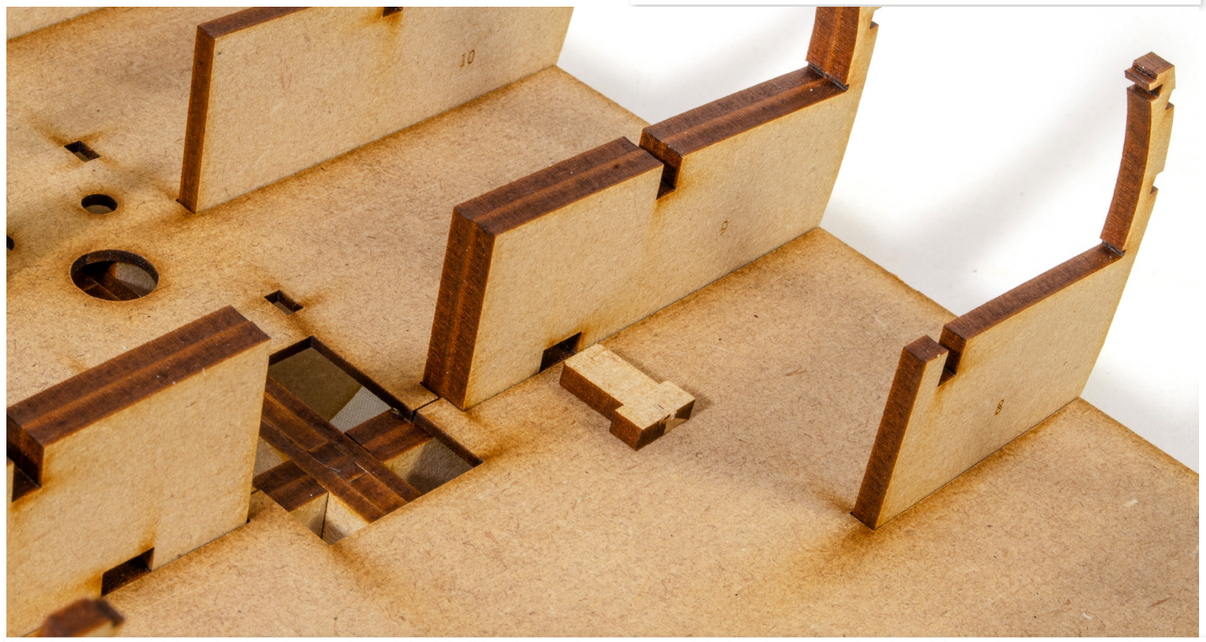
31. When fitted, it will look like this.



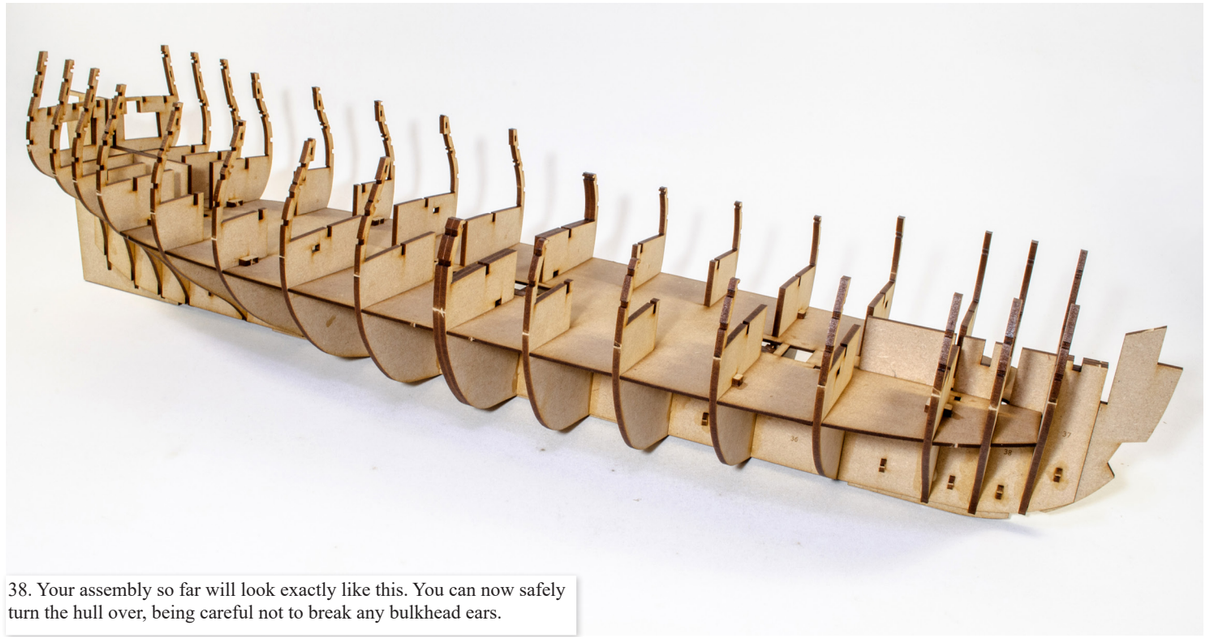
32. From the 2mm MDF sheet, remove part #57. This is the sub-deck which slots into the rear half of the hull.



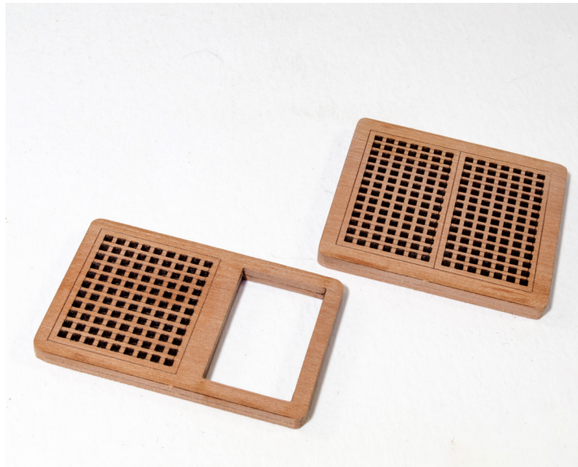
33. Carefully align this part so it sits behind bulkhead #16, but slots into bulkheads #15, #14, #13, #12, #11, #10, and #9.



37. Also fit pegs K-3 into the slots that run through both bulkheads No's 9. On your model, these have moved outboard from where you see on this prototype.

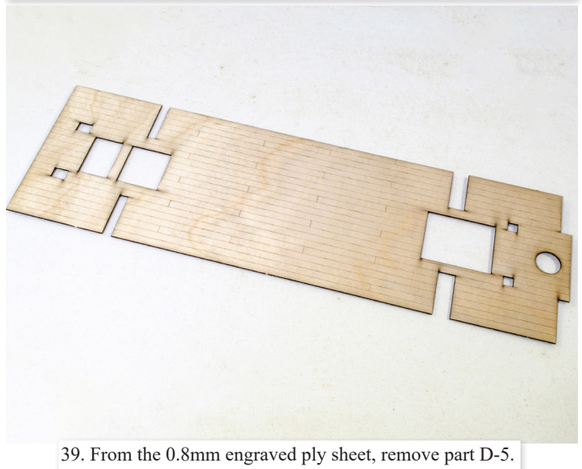


38. Your assembly so far will look exactly like this. You can now safely turn the hull over, being careful not to break any bulkhead ears.

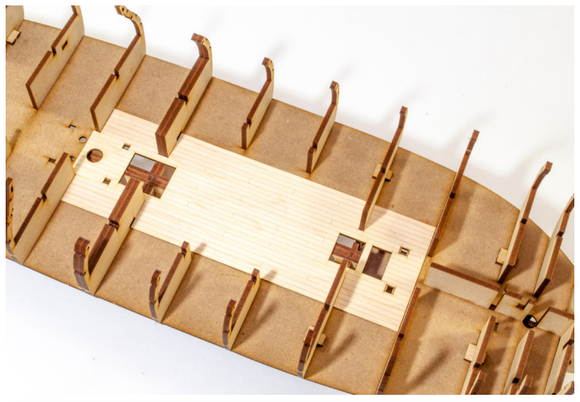


43. When dry, remove the laser char from the edges and interior ladder hatch.

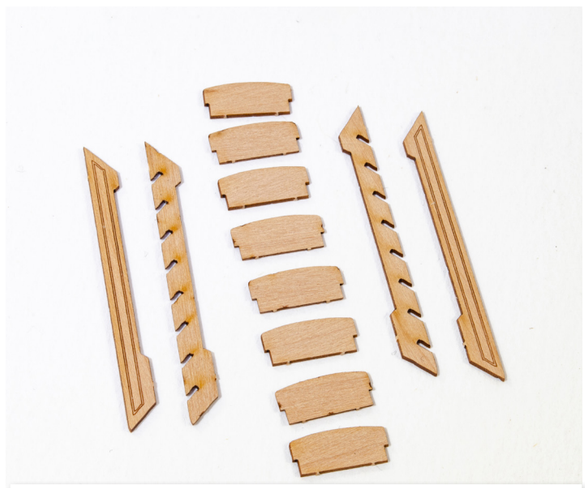
44. These hatchways can now be glued into place on your ply/maple deck as shown.



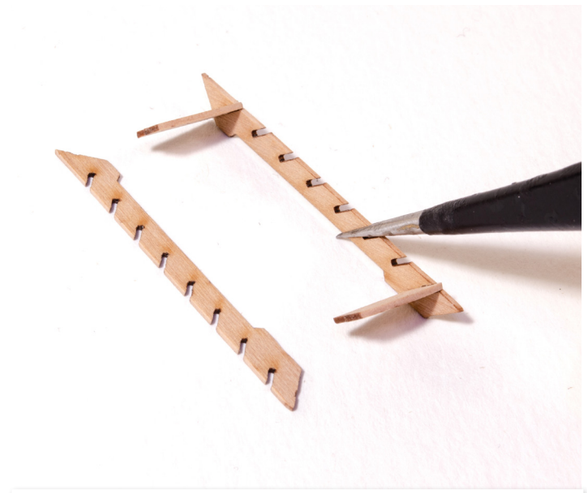
39. From the 0.8mm engraved ply sheet, remove part D-5.



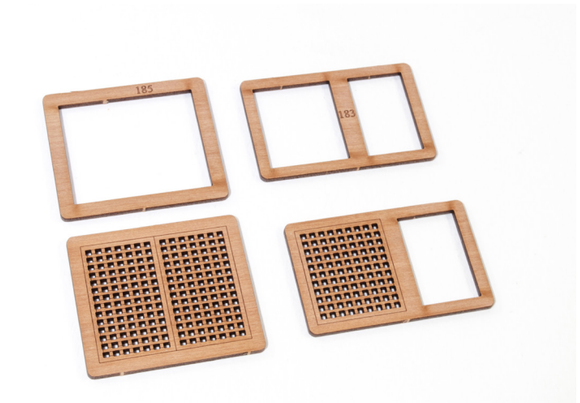
40. Glue the section into place as shown here. It's advisable to dry fit it first and pencil mark the extent of the part onto the MDF section. This will give you the area to apply glue



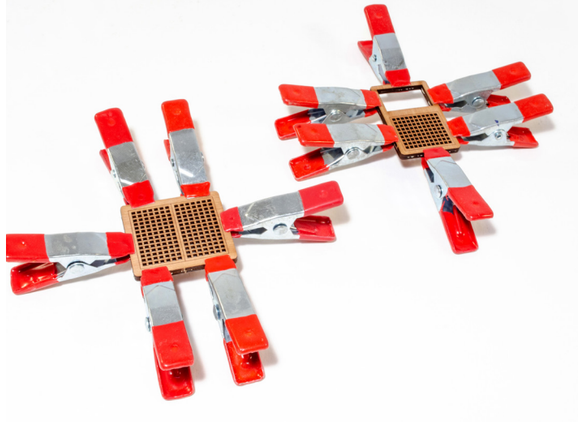
45. ORLOP LADDER: On the 0.6mm wood sheet, remove the parts for the orlop ladder. These are clearly in a section of their own.



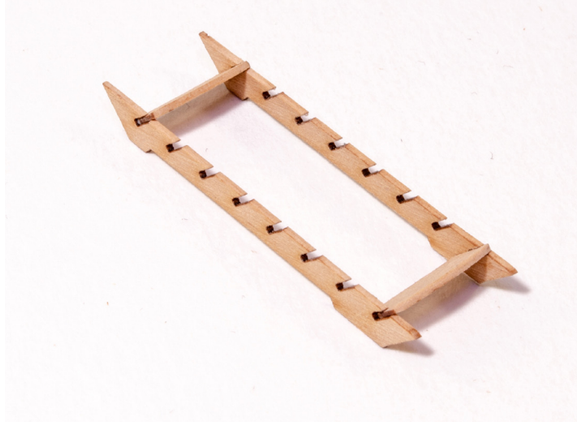
46. Take one of the slotted side parts and glue a step into the top and bottom slots. Leave to dry.



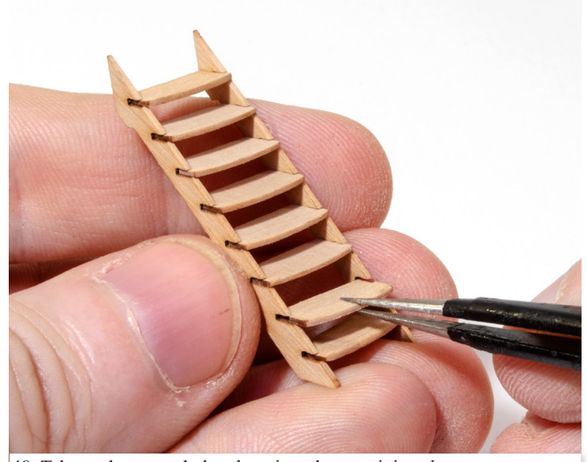
41. From the 1.5mm wood sheet, remove parts #183, #184, #185, and #186.



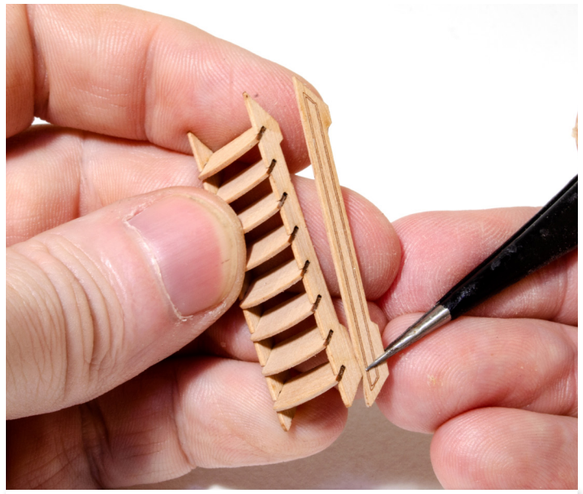
42. Glue 184 onto the top of #183, and #186 onto the top of #185. Clamp until fully dry.



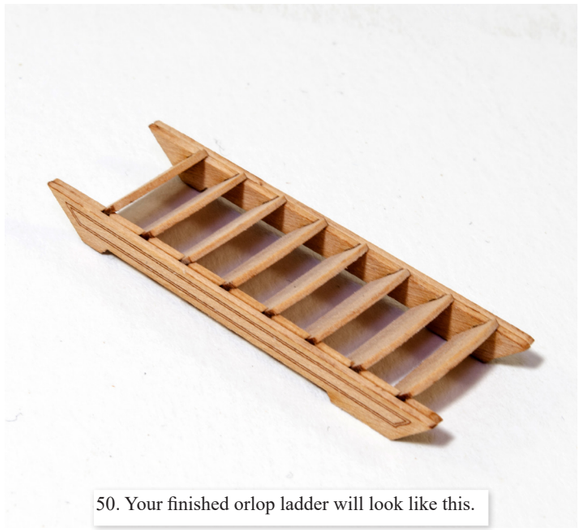
47. Now glue the other side section into place and leave to thoroughly dry.



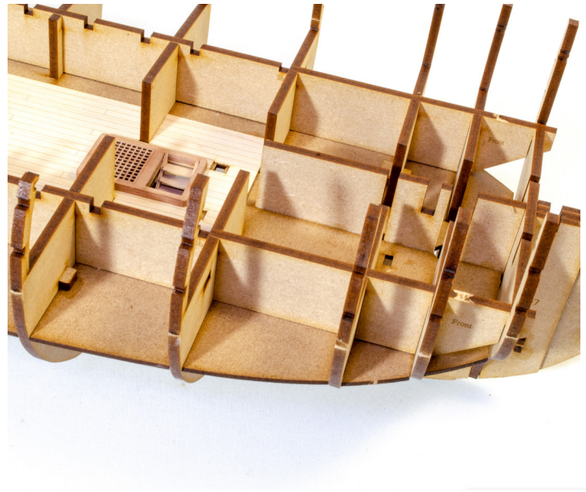
48. Take each step and glue them into the remaining slots.

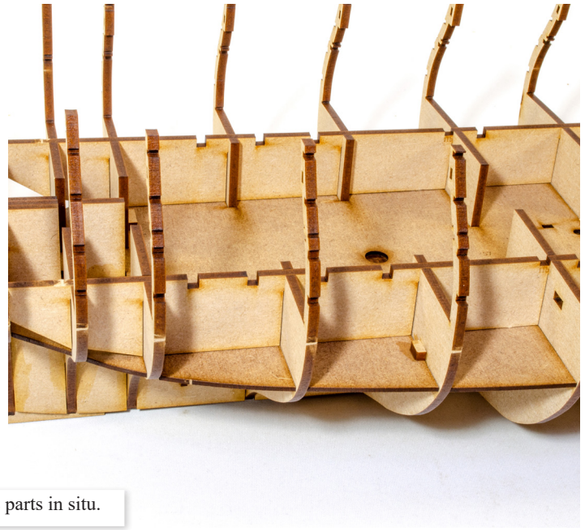


49. Now glue the side facing parts onto each side of the ladder.

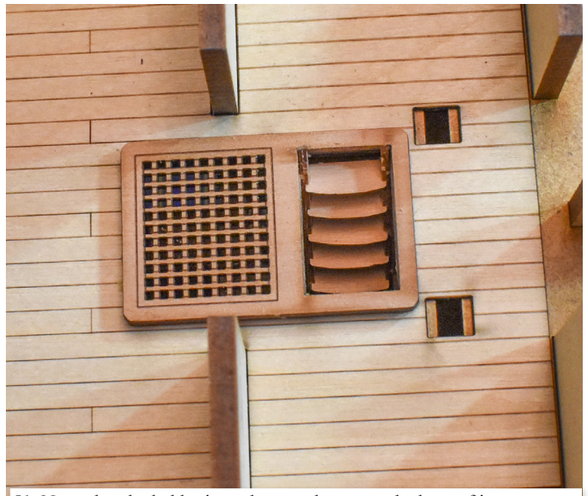


50. Your finished orlop ladder will look like this.





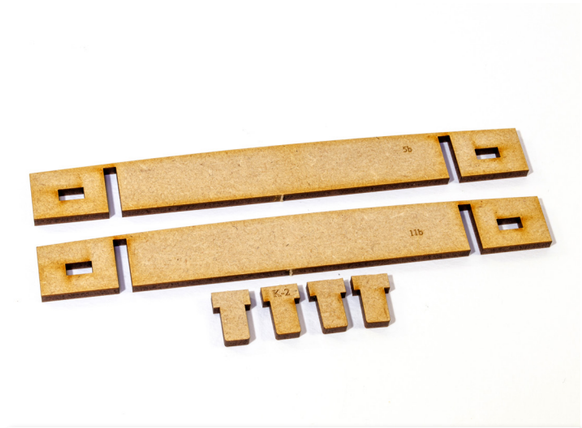
55. Here you see the parts in situ.



51. Now glue the ladder into place as shown, so the base of it rests on the small orlop deck section below.

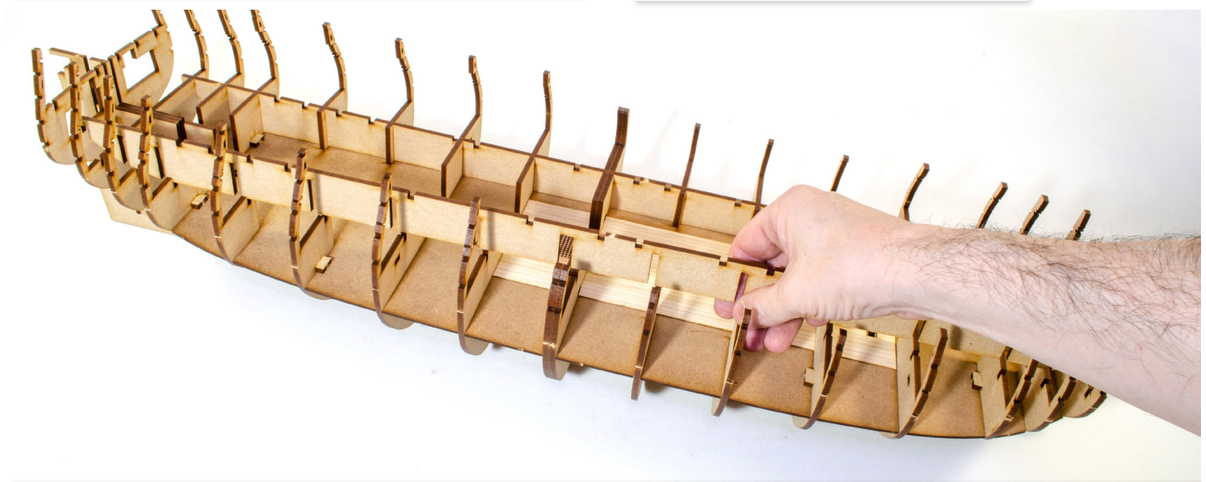
52. From the 3mm MDF sheet, remove both parts #30. Again, the slots are numbered to indicate which bulkhead they'll fit over.

53. The front area is also engraved with 'Front'.

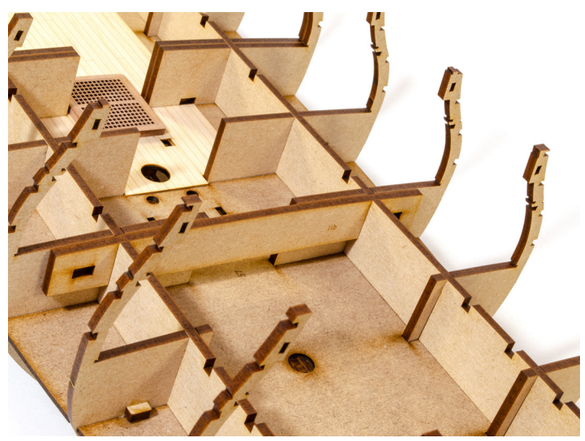


56. From the 4mm MDF sheet, remove parts #5b, #11b, and pegs K-2

57. Slot part #5b adjacent bulkhead #5, as shown. Glue and insert the pegs through the slots as shown.

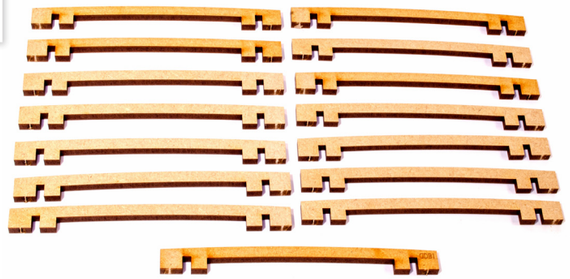


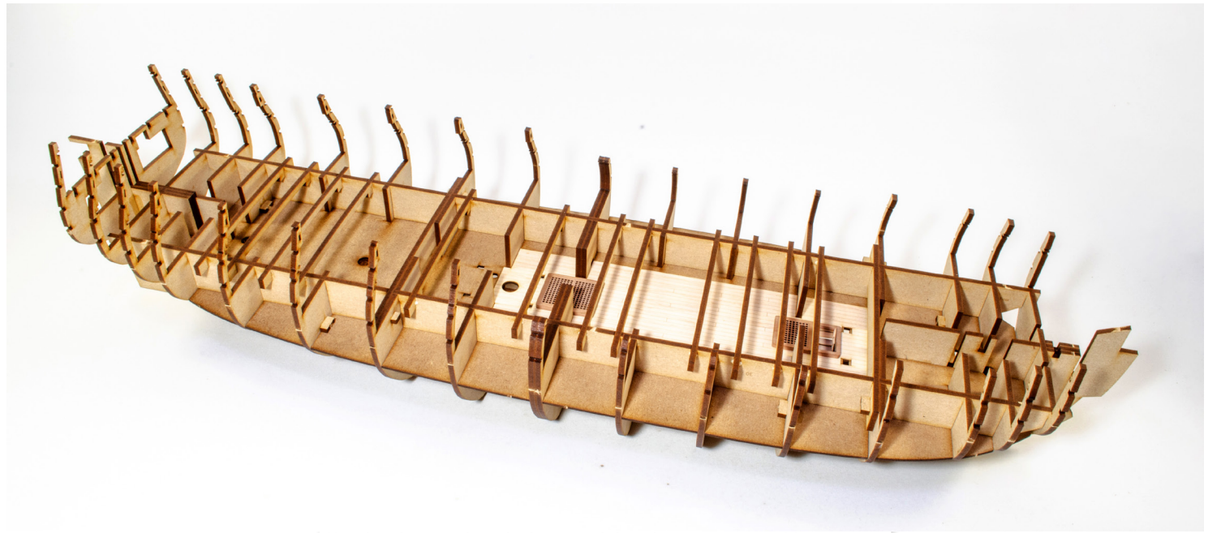
54. Slot these into place as shown, so the part slots fit over the respective bulkheads. These parts will push all the way down so they will sit on the 2mm MDF sub-deck and sit flush with the top of the bulkheads. Do NOT glue.



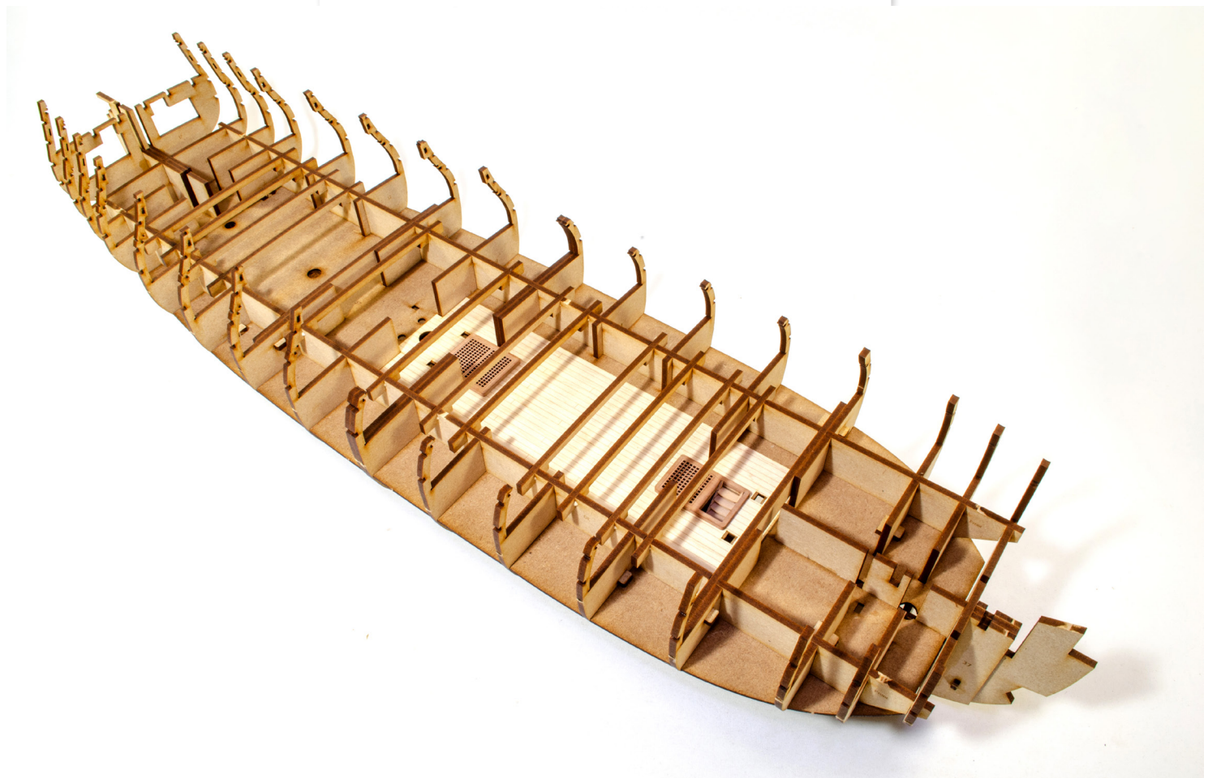
58. Slot part #11b adjacent to bulkhead #11, as shown. Glue and insert pegs through the slots as shown.

59. From the 3mm MDF sheet, remove all parts GDB1.



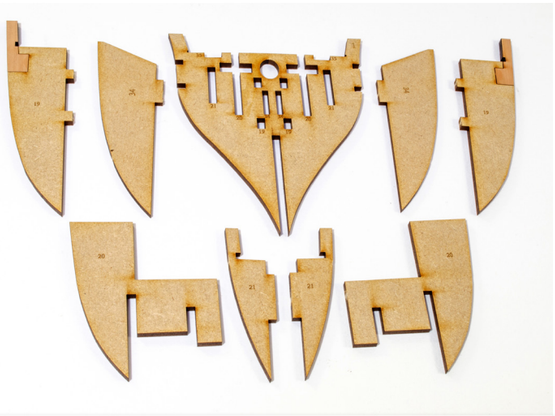


60. Glue the parts into the last remaining slots across parts 30.

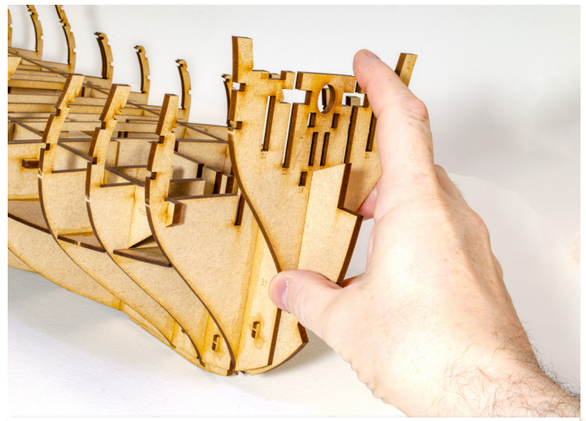


61. From the 4mm MDF sheet, remove both parts 19. From the 4mm wood sheet, remove both parts #19a.

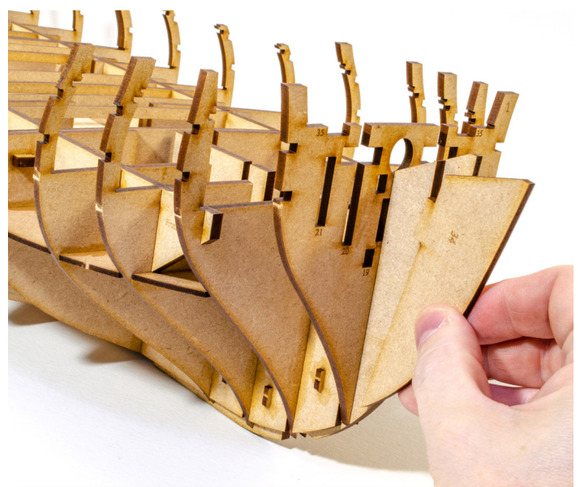
62. Glue parts #19a into the MDF parts, as shown. Allow to dry.



63. If you hadn't already removed the unglued bulkhead #1, you can leave it in place for the moment. From the 4mm MDF sheet, remove parts #20, #21, and #34. There are two each of these.



64. If you've already removed unglued bulkhead #1, then slot it into position again. Do NOT glue.



65. Glue parts #34 onto bulkhead #1, on either side of the keel, but DO NOT GLUE to the keel itself. This is very important.

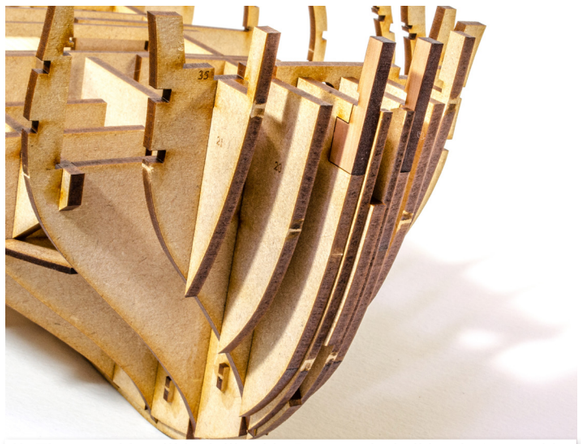
66. Glue the previous part #19 assemblies into place on bulkhead #1, as shown. They can also be glued directly to the adjacent parts you just fitted.

67. Now glue parts #20 into place on bulkhead #1. This will hook over bulkhead #2, but don't glue it to that bulkhead yet.

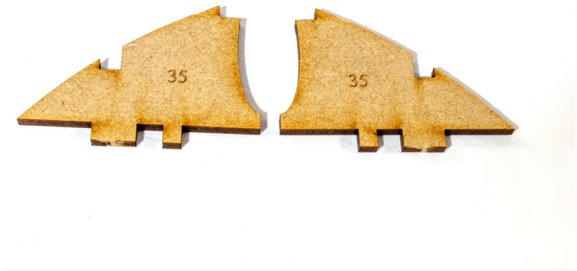
68. Glue both parts #21 into place on bulkhead #1, as shown.

73. Glue parts #19b to the outer side of parts #19, covering the joint between the pear and MDF area.

74. The completed assembly will look like this.

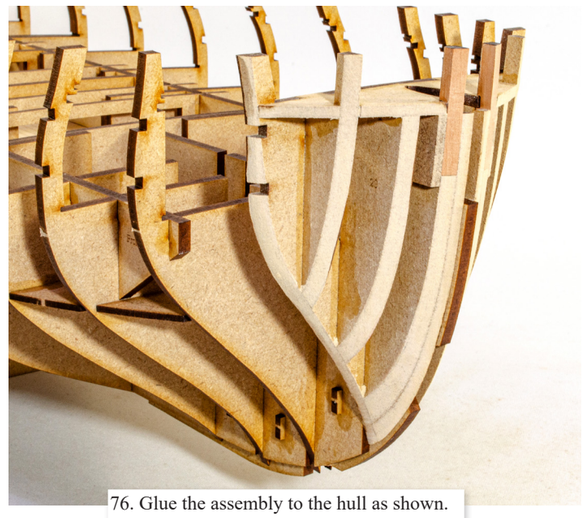


69. The assembly will look like this. Remove the bulkhead #1 assembly from the hull.



70. Remove both parts #35 from the 3mm MDF sheet.

75. You now need to sand (fair) the assembly to account for its curves, as you see here. You can always under-sand this a little as it can be completed when finally fitted to the hull. Do as much as you can at this point. This photo will serve as an indication.



76. Glue the assembly to the hull as shown.

71. Before the previous parts have set, glue parts ¢35 into place as shown. It is possible to fit the after the previous parts have set, but easier when the glue is still not quite set.

72. From the 2mm MDF sheet, remove both parts #19b.

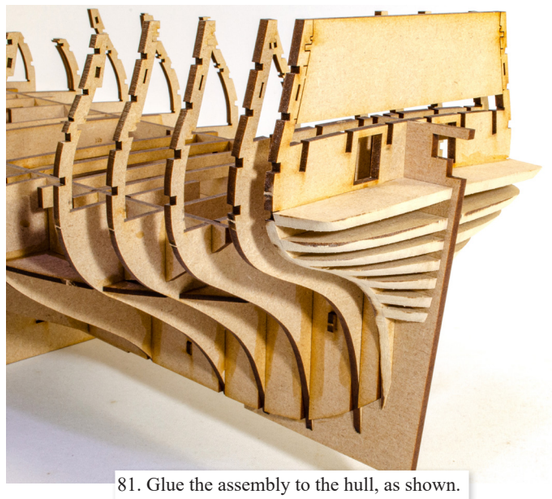
77. From the 4mm MDF sheet, remove bulkhead #18. From the 4mm MDF sheet, remove parts #22, #23, #24, #25, #26, #27, and #28. There are two of each of those.

78. Glue the parts to bulkhead #18, using the slot reference numbers to help you with the correct part placement. Do this for both sides.

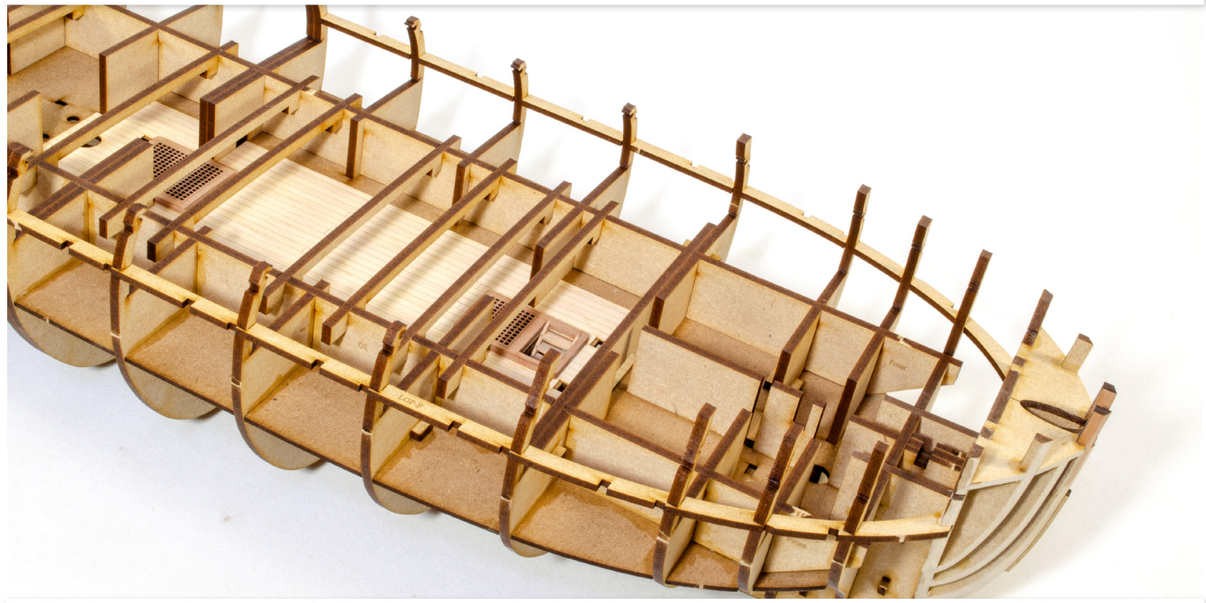
79. Your finished assembly will look like this. Leave to thoroughly dry.

84. From the 3mm MDF sheet, remove both parts LGP-F. That acronym means ‘lower gun port – Front’. These are the first two strips that will form the lower ledge of each main deck gun port. Treat these carefully as they are fragile in places.

80. Sand the assembly so the curves flow into each other. You’ll note the top two parts are squarer than those underneath. Please maintain that shape of those upper parts and transition that shape down to the curve of the parts below it. Final shaping can be left until the hull is faired. Sanding now simply lessens the work you need to do on a large hull.



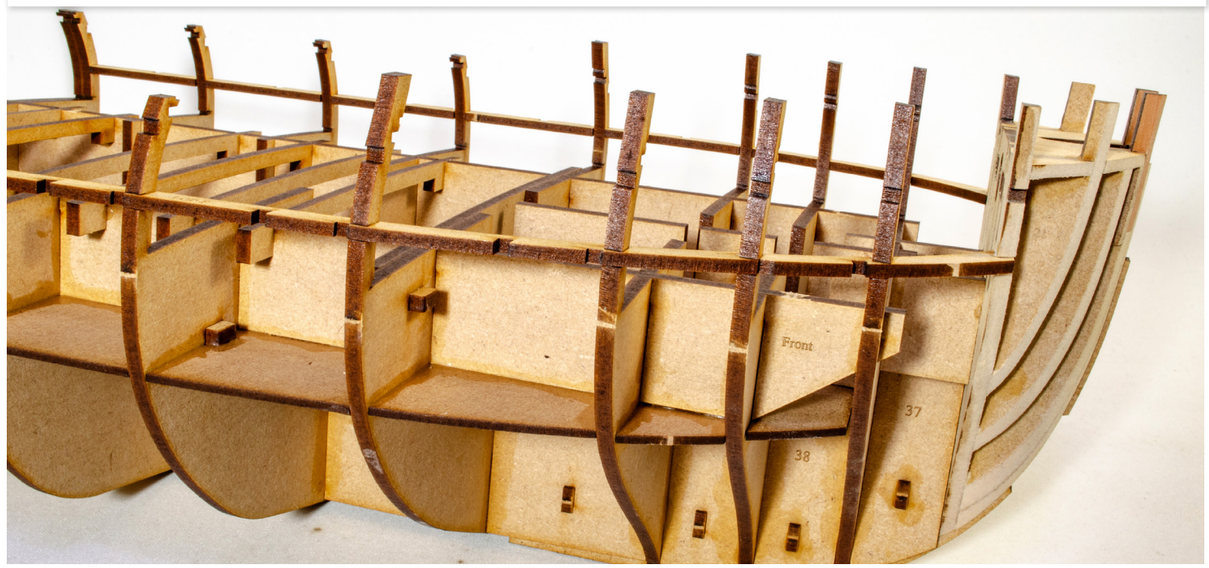
81. Glue the assembly to the hull, as shown.



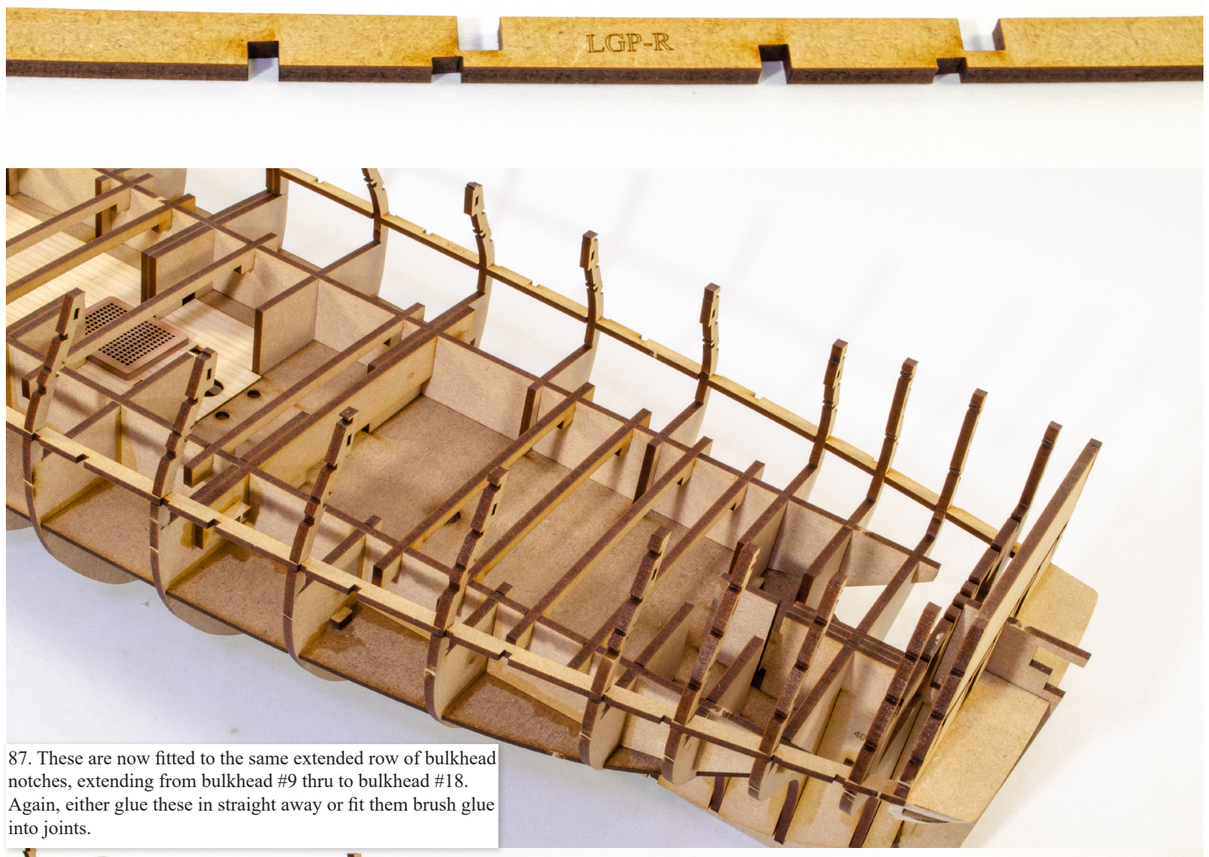
85. Fit each strip into the lowest row of bulkhead notches, stretching from bulkhead #1 thru to bulkhead #9. Ease the parts in gently. You can either glue these in straight away or fit them first and brush glue into the joints afterwards.

82. From the 4mm MDF sheet, remove parts #29.

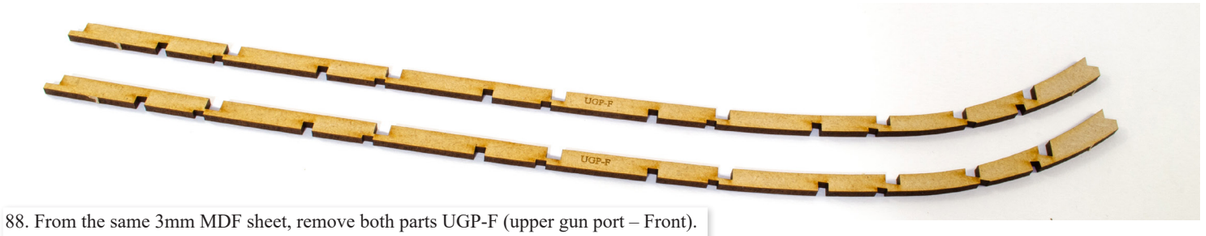
83. Shape as shown and glue into position on either side of the hull.



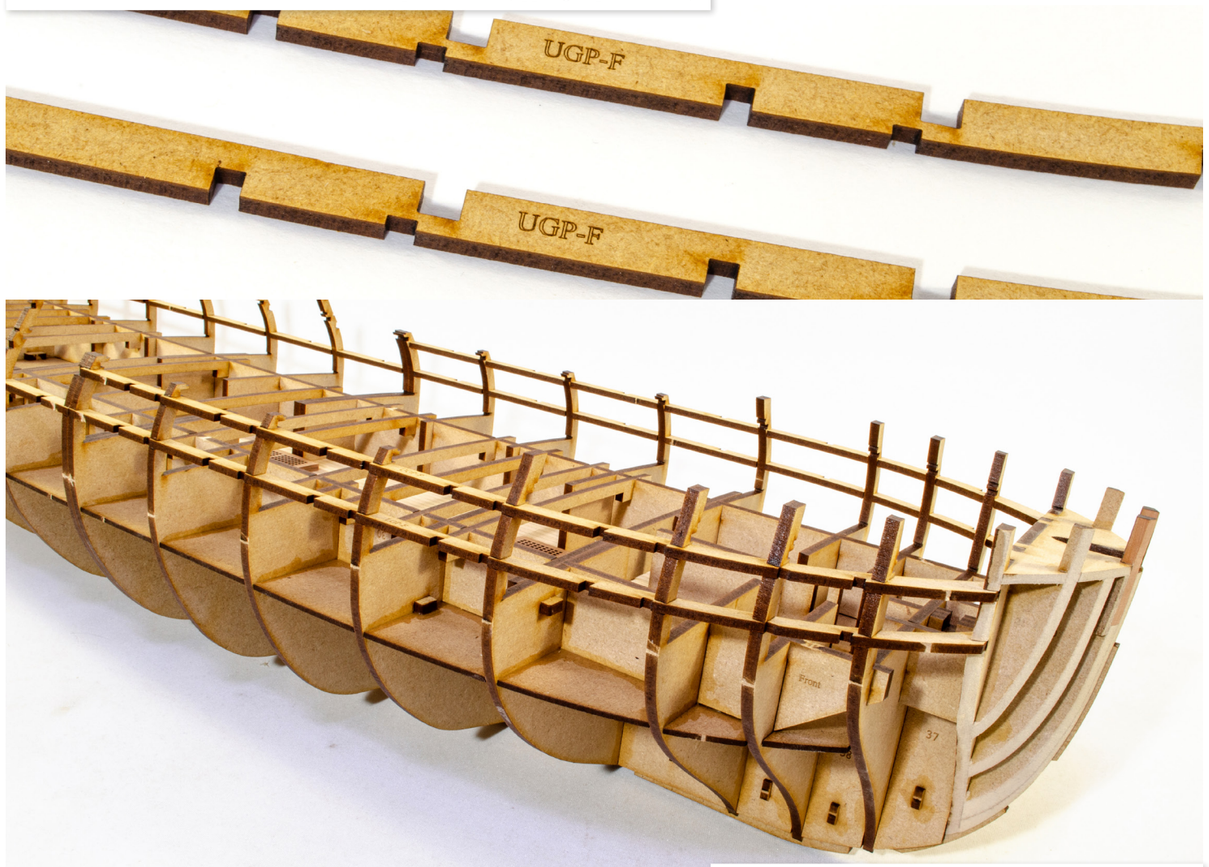
86. From the 3mm MDF sheet, remove both parts LFP-R (lower gun port – Rear).



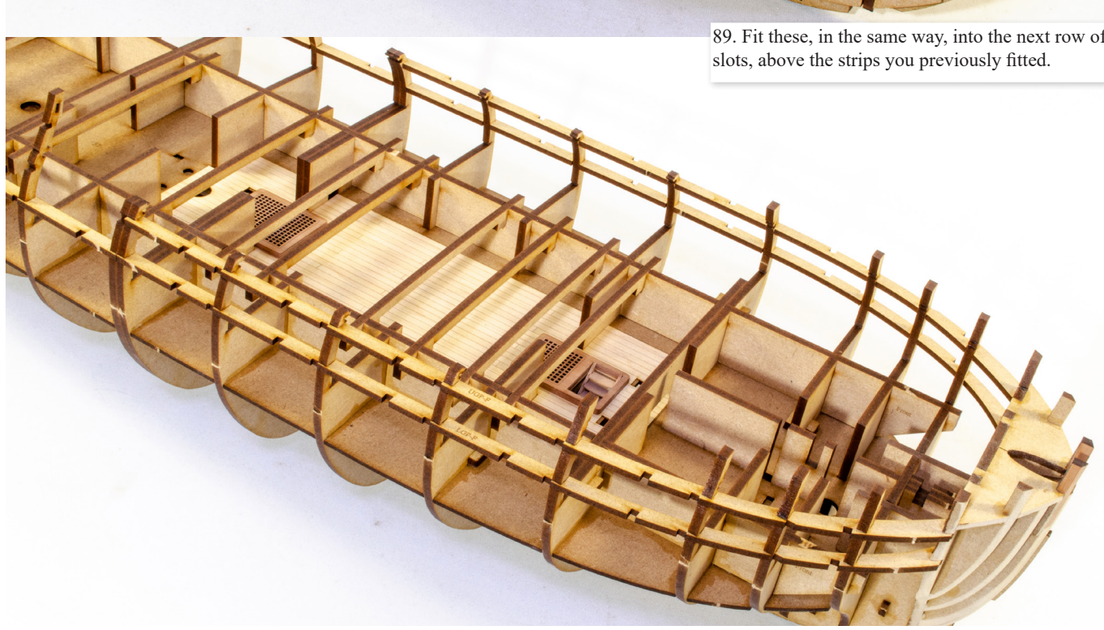
87. These are now fitted to the same extended row of bulkhead notches, extending from bulkhead #9 thru to bulkhead #18. Again, either glue these in straight away or fit them brush glue into joints.

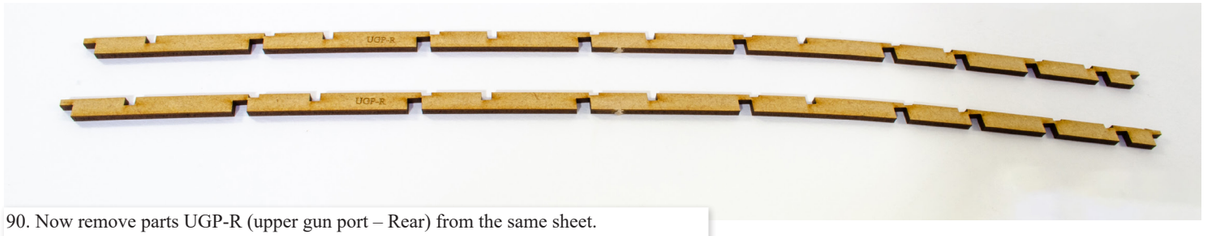


88. From the same 3mm MDF sheet, remove both parts UGP-F (upper gun port – Front).

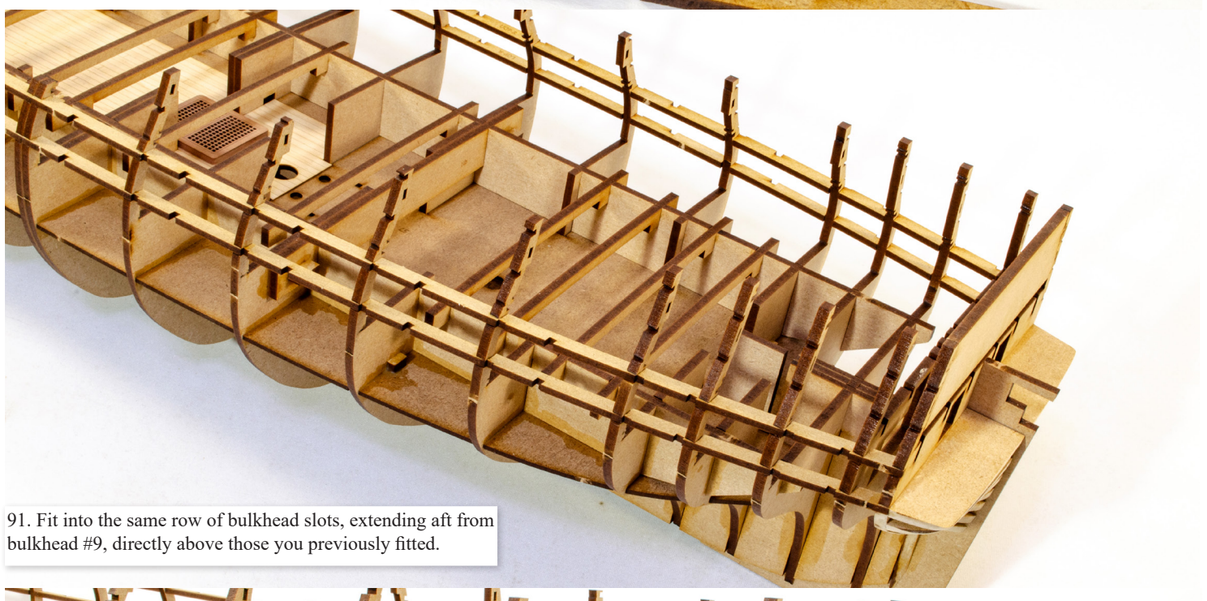


89. Fit these, in the same way, into the next row of bulkhead slots, above the strips you previously fitted.

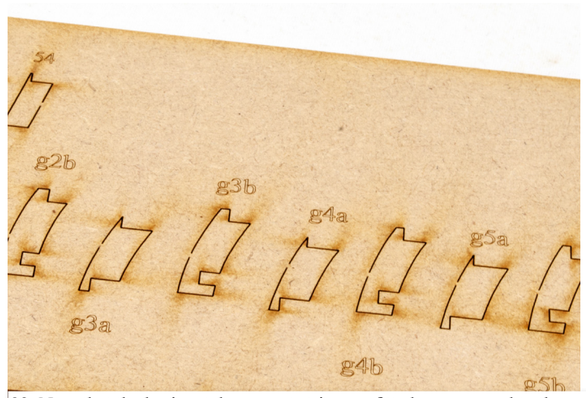


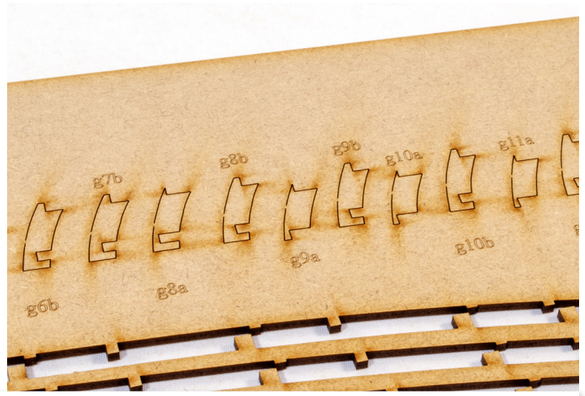


90. Now remove parts UGP-R (upper gun port – Rear) from the same sheet.



91. Fit into the same row of bulkhead slots, extending aft from bulkhead #9, directly above those you previously fitted.

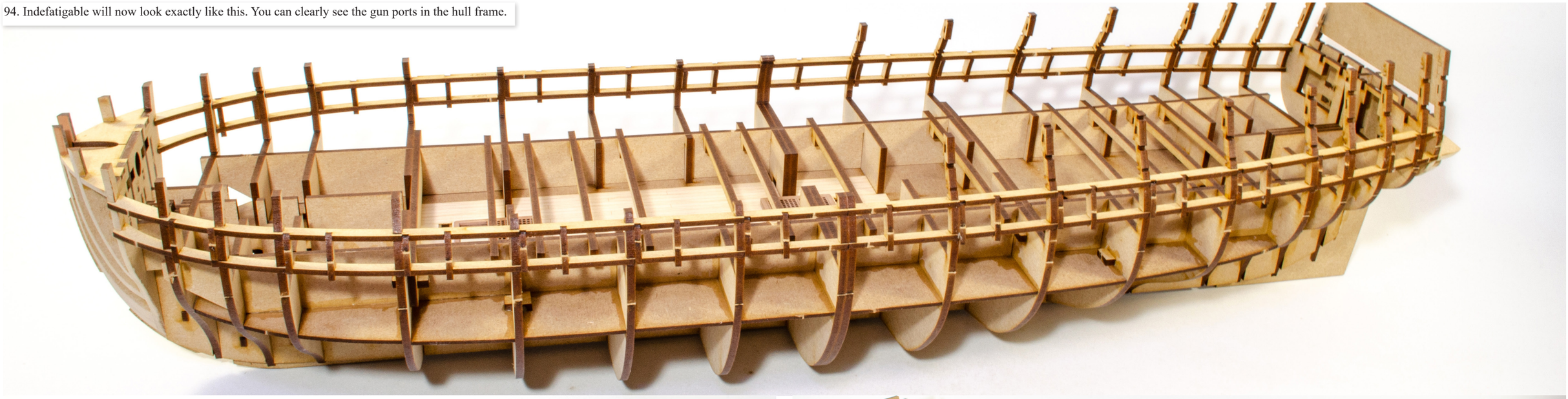


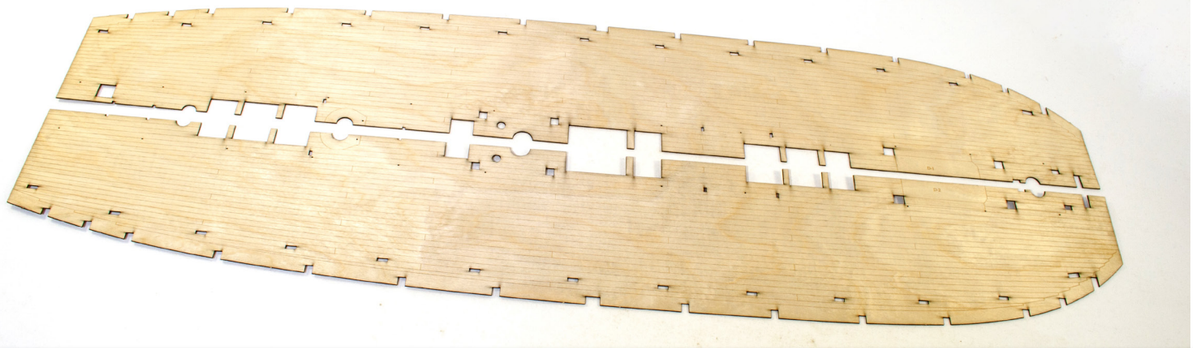


92. Now that the horizontal gun port strips are fitted, we proceed to the vertical gun port sides. It's important that you remove these either one, or one pair, at a time so you don't get them mixed up. Each pair of gun port is specific to that port. They aren't interchangeable. Notice how each pair are numbered: g1a and g1b, g2a and g2b, etc. Parts with an 'a' in them are the forward strip. Those with a 'b' are the rear strip.

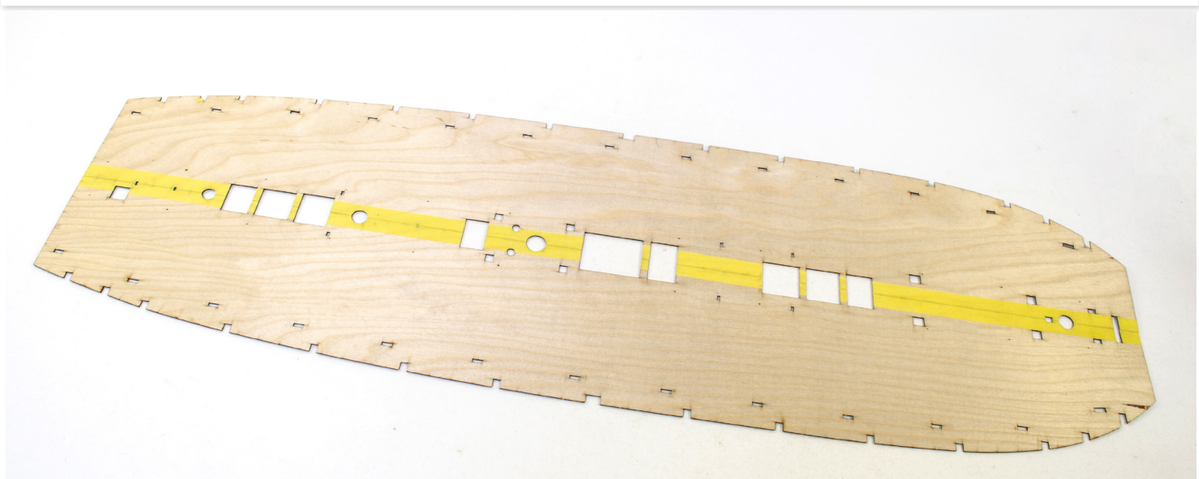
93. The first gun port is number 1, then going backwards they are number 2, 3, 4, 5, 6, etc. Glue each pair of vertical gun port strips into their respective slots between the rails you have just fitted. Work slowly and methodically along the ports from bow to stern. IMPORTANT: Please note that gun port 7 only has one strip (g7b). This is because the bulkhead at that position forms the forward side of the port.

94. Indefatigable will now look exactly like this. You can clearly see the gun ports in the hull frame.

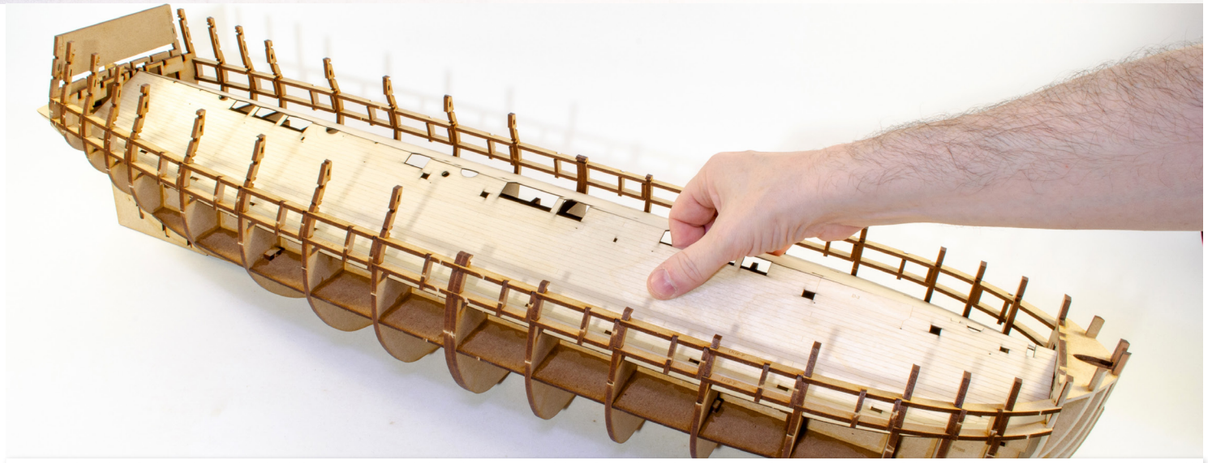




95. Now take the 0.8mm ply main gun deck sections. You will see how these have been engraved. The engraved side will face upwards and will be used at a guide to planking your deck from the individual strips we have supplied. NOTE: A laser-engraved maple deck is available for all deck areas on Indefatigable, as an extra option in our web shop.



96. Turn the deck sections upside down so the upward faces are blank. Align the halves perfectly, and then run a strip of paper masking tape down the middle, as shown. Cut away any areas of tape which run over hatchways etc. This tape provides a perfect hinge to the deck so it can be slightly folded during installation.



97. Run beads of glue along the deck beams etc. and then locate one side of the deck into the notches at the base of the bulkhead ears. These notches will hold down the edge of the deck, so it won't pop up out of place. Hinge the deck halves to do this, then locate the other side of the deck into the notches at the bottom of the opposite bulkhead ears. Make sure both sides are slotted fully into those notches, all the way along. That is vital. Your deck will now lay flat across the beams. Use a range of small weights along the centreline until the glue has dried. This looks challenging but is actually quite simple. Do a couple of dry-runs before you commit to glue.

98. Your fitted deck will look just like this.

99. Carefully remove the plank panel from bulkhead #18. You can do this by gently twisting at the part and pushing in either direction wile supporting the bulkhead ears. That panel can now be discarded.

100. From the 3mm MDF sheet, remove parts #41, #42, and #43. There are two sets of these, and they are labelled ‘Inner’, ‘Middle’, and ‘Outer’.

105. From the 3mm MDF sheet, remove both parts #48.

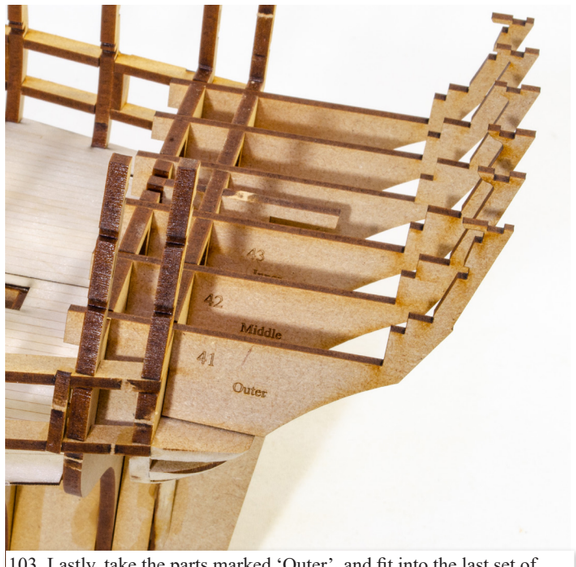
106. Here you see one of the parts in place, glued onto the ‘Outer’ stern timber that you just fitted, and against bulkhead 18. These are fitted so they are angled with the deck camber of bulkhead 18, and flush with the top of the ‘Outer’ stern timber. To achieve this you will need to slightly bevel the side which is glued against the ‘Outer’ stern timber.

101. Take the pair labelled ‘Inner’ and glue them across the innermost slots in bulkheads #17 and #18, as shown. They will be flush with the top of those bulkheads and will lay flat on the stern section.

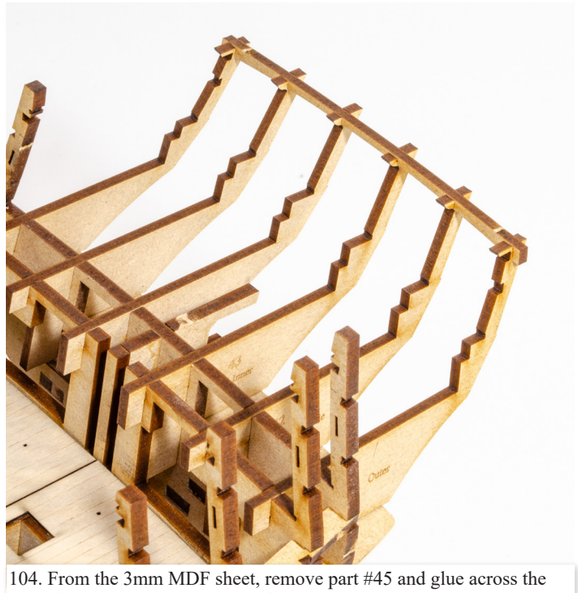
102. Now do the same for the parts labelled ‘Middle’, in the adjacent set of slots.

107. From the 2mm MDF sheet, remove parts #46 and #47.

108. Glue the parts into the area seen here, directly under the last parts you fitted. This simply fills a hollow under there and gives you something solid to later work against.



103. Lastly, take the parts marked ‘Outer’, and fit into the last set of slots.



104. From the 3mm MDF sheet, remove part #45 and glue across the tops of the parts that you’ve just fitted.

109. From the 2mm MDF sheet, remove both parts #60. These are engraved with ‘AL’, meaning ‘Aft Lower’.

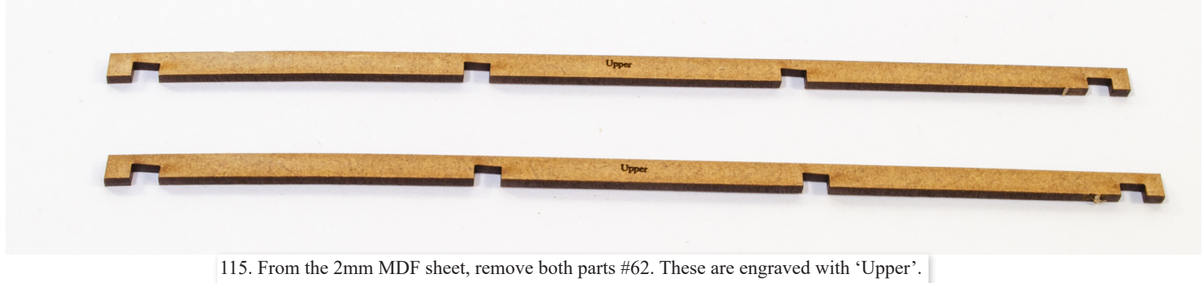
110. Glue these into the next set of bulkhead slots running from bulkhead #15 and terminating on the notches in the ‘Outer’ stern timbers.

111. From the 2mm MDF sheet, remove both parts #61. These are engraved with ‘AU’, meaning ‘Aft Upper’.

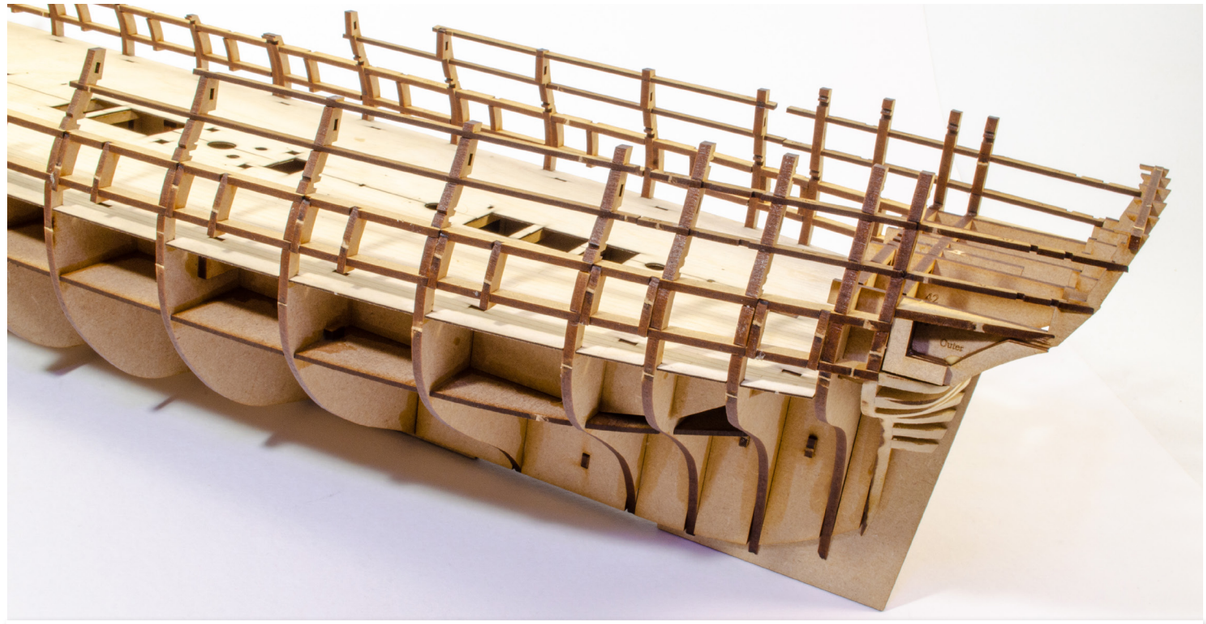
112. Glue these into the next set of bulkhead slots directly above where you installed the previous ones.

113. From the 2mm MDF sheet, remove both parts #63. These are also engraved with ‘Lower’.

114. Now glue these into the bulkhead slots that run from bulkhead #10 thru to bulkhead #14. You do not need to glue where the part touches one of the previous ‘AL’ rail you recently installed. In fact, there should be a small gap at that point anyway. If not, don’t worry at all about that.



115. From the 2mm MDF sheet, remove both parts #62. These are engraved with ‘Upper’.

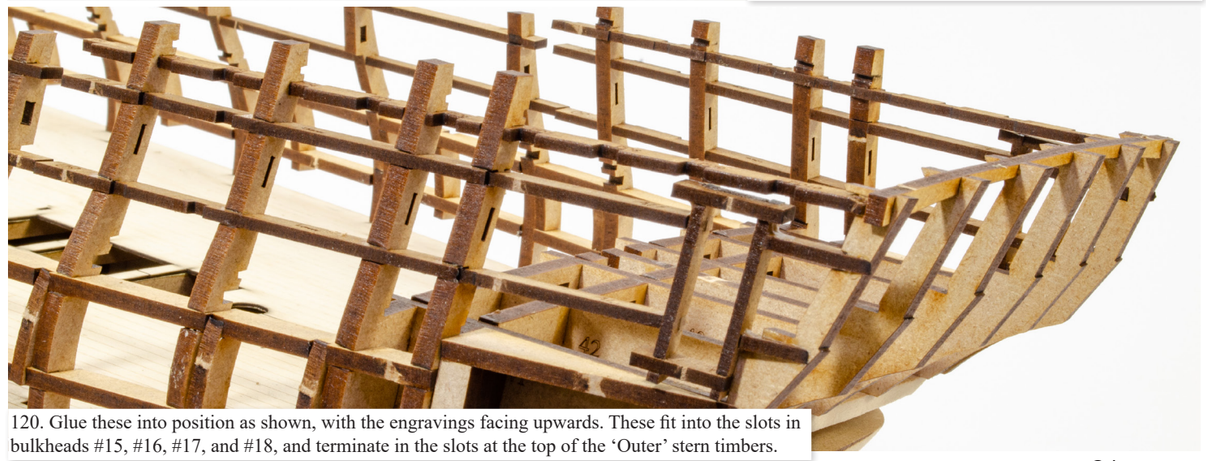


116. Glue into place as shown, in the uppermost slots on bulkheads #12, 13, and #14. It will also sit atop bulkhead #11. Leave to thoroughly dry.

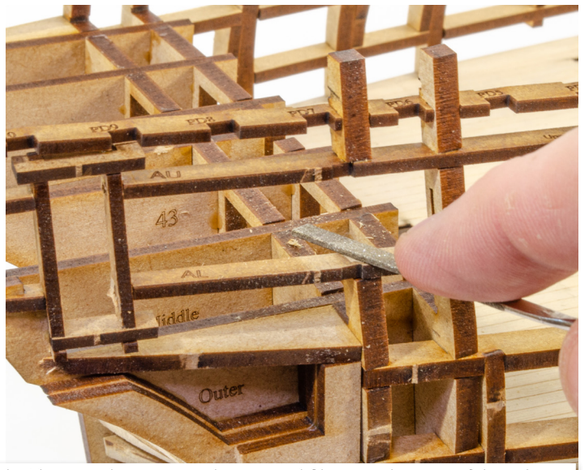
117. From the 2mm MDF sheet, remove parts #64, #65, and #66. These will form the door frame between the main cabin and the quarter galleries.

118. Glue the two vertical parts between the notches in the rails you recently installed. Glue the shorter of the remaining parts to the notches on the bottom of the door frames (with the shorter side of that facing aft so it doesn’t foul the ‘Outer’ stern timber. Glue the last part to the top of the vertical door frames. Leave to thoroughly dry.

119. From the 2mm MDF sheet, remove both parts #59. You will see various notches in this. The notches that are just simple numbers, refer to the bulkheads into which this part will slot. The other notches with ‘PD’ on them, refer to individual deck beams that will eventually go to create the poop deck itself. The latter can be ignored for now.

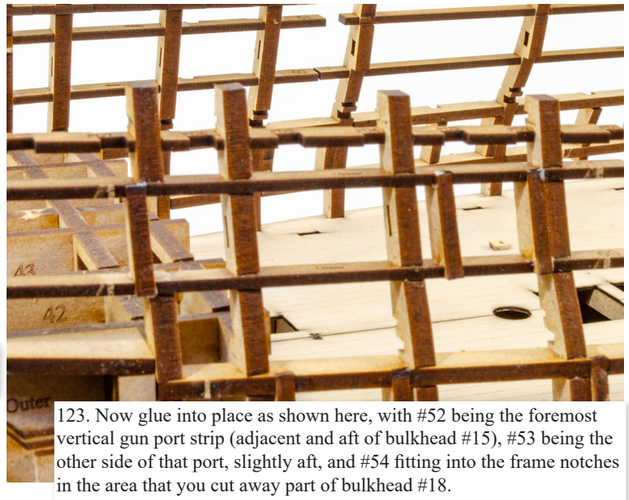


120. Glue these into position as shown, with the engravings facing upwards. These fit into the slots in bulkheads #15, #16, #17, and #18, and terminate in the slots at the top of the ‘Outer’ stern timbers.



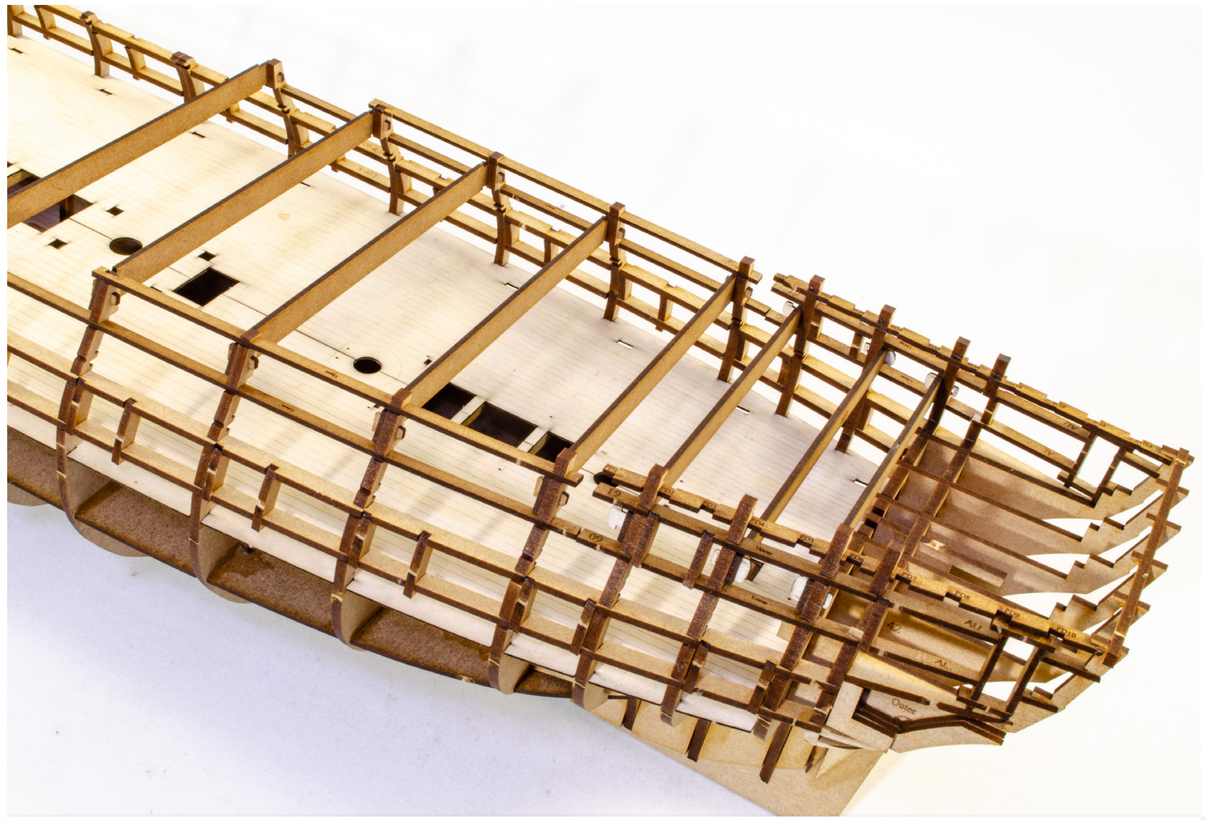
121. Carefully saw out this specific part of bulkhead #18 and file the area smooth. Also note that you can also saw and file away the parts of the strips that pass through the quarter gallery doorways.

122. From the 3mm MDF sheet, remove parts #52, #53, and #54. Don't mix them up.

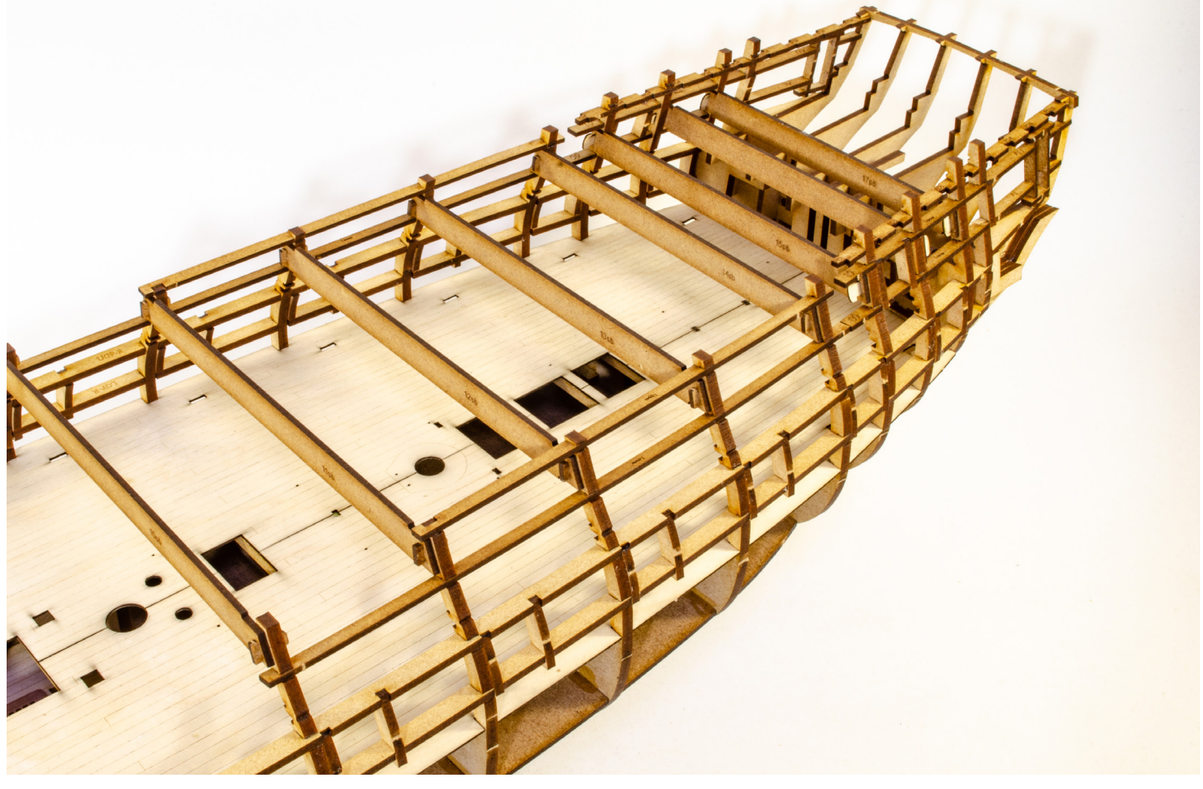


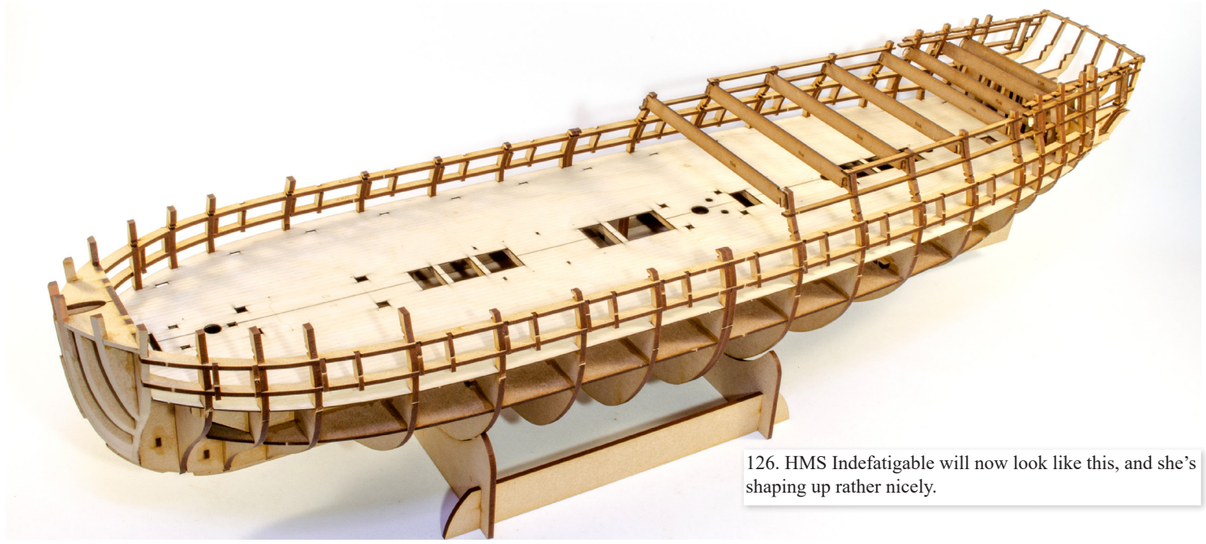
123. Now glue into place as shown here, with #52 being the foremost vertical gun port strip (adjacent and aft of bulkhead #15), #53 being the other side of that port, slightly aft, and #54 fitting into the frame notches in the area that you cut away part of bulkhead #18.

124. From the 2mm MDF sheet, remove the temporary beams #10sb, #11sb, #12sb, #13sb, #14sb, #15pb, #16pb, and #17pb (not shown here). Also remove the 2mm MDF pegs from the same sheet. On the 0.8mm ply sheet, remove the pegs PB1

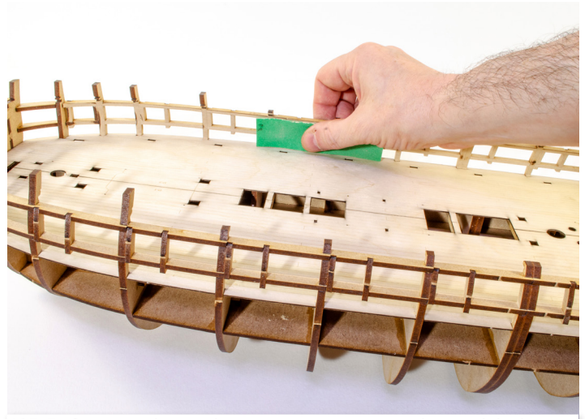


125. Here you can see how they temporarily fit to the hull, utilising the slots in the bulkhead ears. DO NOT GLUE. These can be fitted a little later if you wish. They aren't really necessary at the moment.





126. HMS Indefatigable will now look like this, and she's shaping up rather nicely.



127. Before any other work can commence, you need to sand the inner bulwark frames, so they are smooth. This can be a little time consuming but doing this properly will pay off in the next stages. Just be careful with the frames at this stage.

130. We suggest that you initially clamp the parts into place after multiple test-fits and any trimming (if needed). Remember that the port holes in these will be slightly smaller than the frames, to allow you to trim those areas later. Once you have clamped these in place, glue can be painted into the joints from the rear. NOTE: As wood is a natural product, some wood can be stiffer than normal. If you find this with yours, soak the parts in hot water for 30 minutes and when clamp into position until dry. We suggest no less than 24hrs to allow the part to return to its pre-soak size, before gluing.

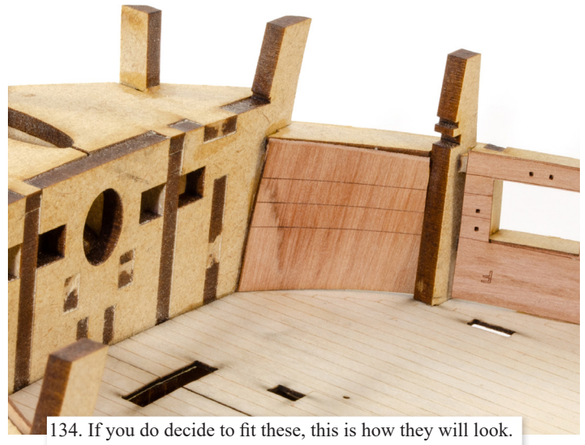
128. From the 1mm wood sheet, remove parts #272, #273, #274, and #275. Those are the parts for the starboard inner bulwark, starting from bow to stern.

129. Let's start with the first two parts, starting at the bow.

131. We will now fit the last two bulwark sections on this side of the hull.

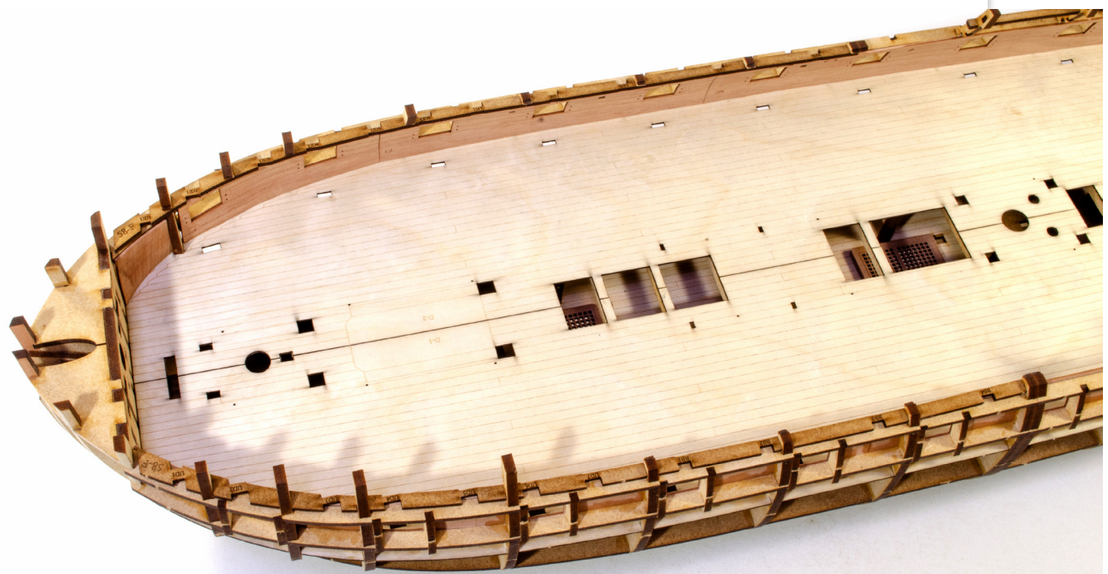
132. Again, soak if necessary and allow 24hrs to dry out before clamping to the hull and painting glue into the joints from the rear. When set, repeat the process with all bulwark sections on the opposite side of the hull.

133. We have included two optional pieces (#268F) which can be used to block off the inner bulwark framing at the bow area. These are optional as they really won't be seen.



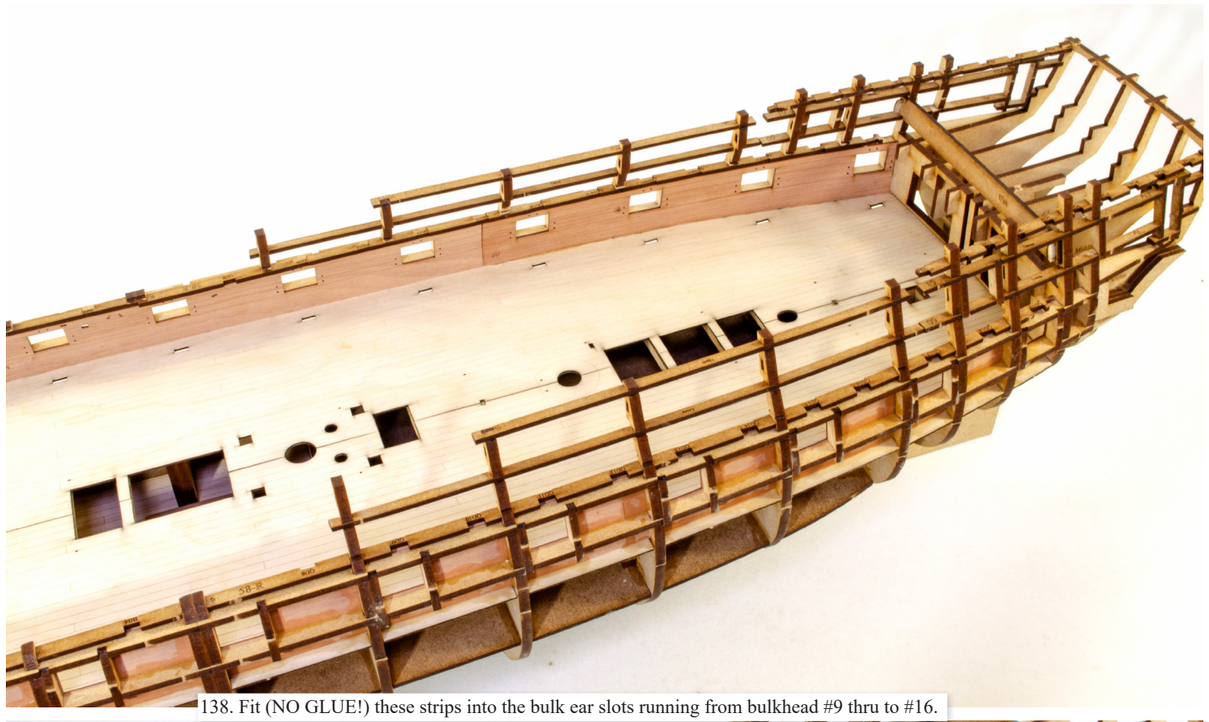
134. If you do decide to fit these, this is how they will look.

135. From the 2mm MDF sheet, remove both parts #58-F. These are the strips which will eventually hold the various deck beams.



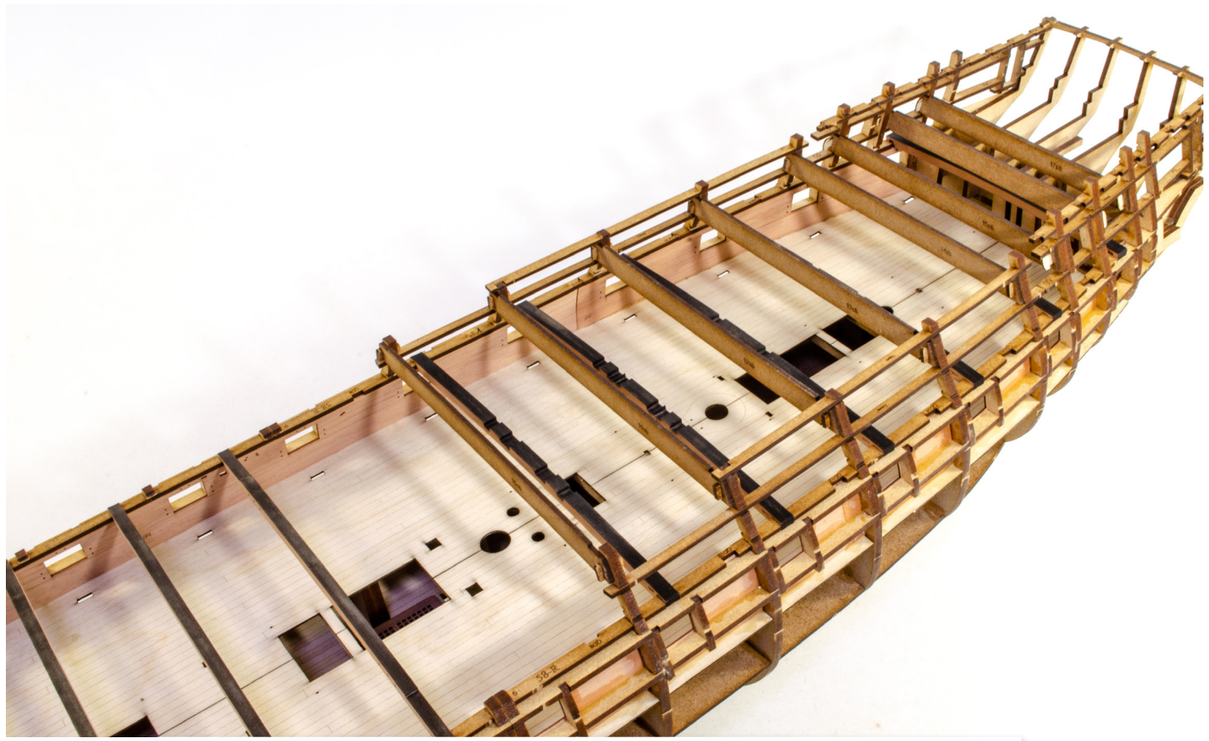
136. Fit (NO GLUE!) these strips into the bulk ear slots running from bulkhead #2 thru to #9.

137. From the 2mm MDF sheet, remove both parts #58-R. These are also the strips which will eventually hold the various deck beams.

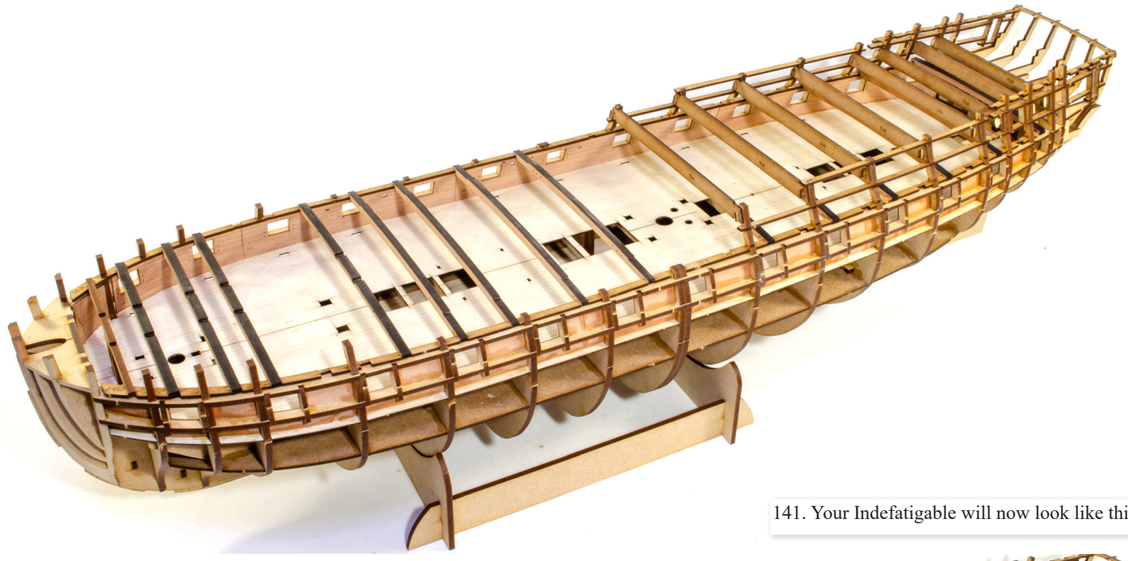


138. Fit (NO GLUE!) these strips into the bulk ear slots running from bulkhead #9 thru to #16.

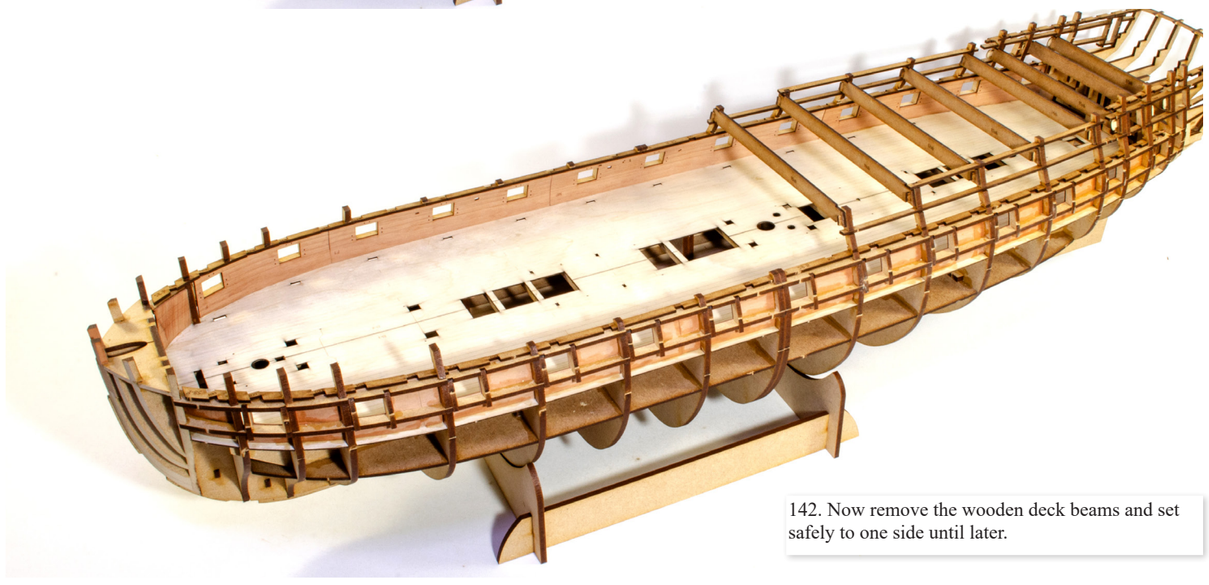
139. From the 4mm and 5mm wood sheets, remove a selection of deck beams, as well as the remaining deck beam UD1 from the 4mm MDF sheet. You will notice that the strips you just fitted have the deck beam number engraved on them. Sit (NO NOT GLUE!!) the correct beam into its relative slot, from bow to stern. This is simply to gauge you have the correct positioning of the 2mm MDF strips that you recently fitted. Adjust those strips if necessary. Any adjustments should only be minor, and in terms you shouldn't really need any adjustment at all. Once you are happy that the beams sit snugly into their positions, paint some wood glue into the joint between the strips and bulkheads. NOT the deck beams themselves!



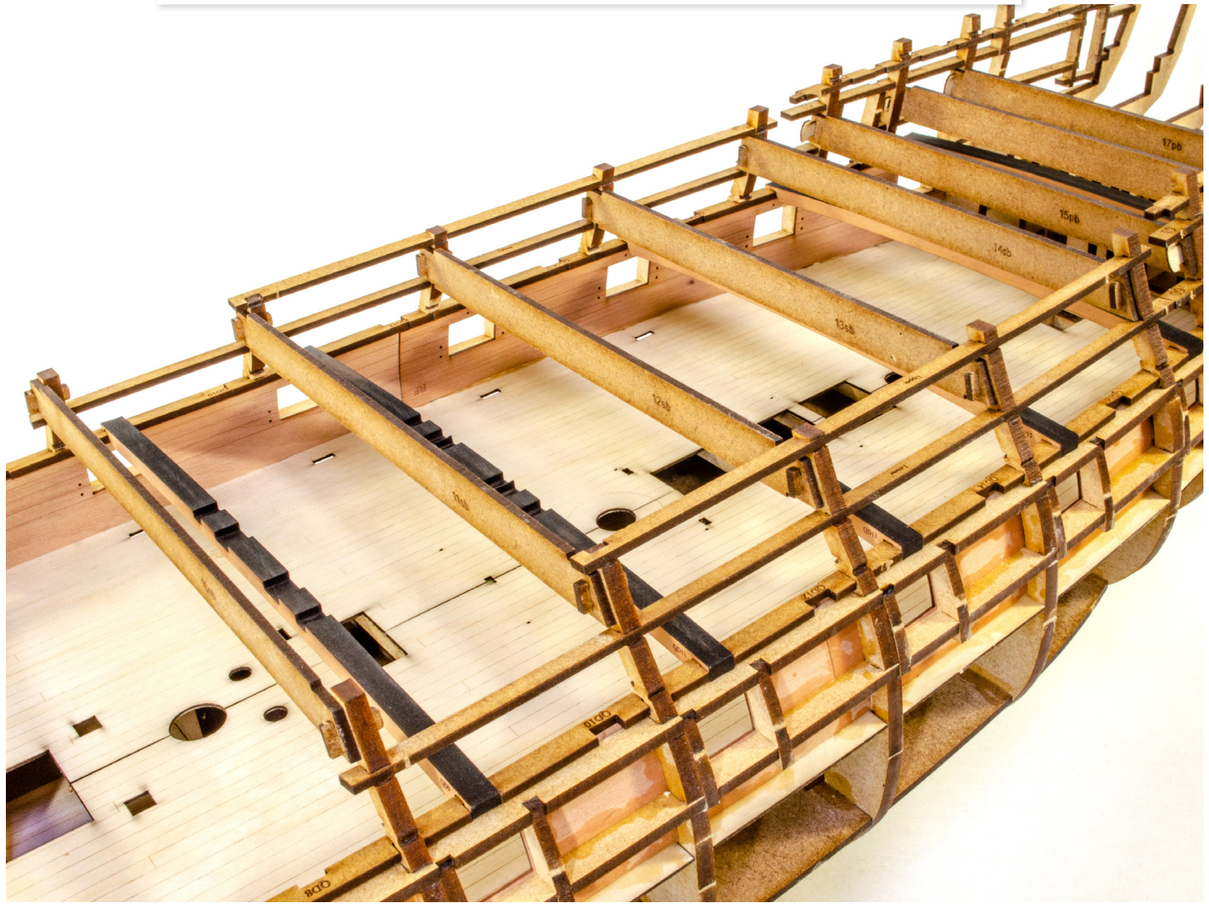
140. You can now reinstate the temporary MDF 2mm bulkhead beams and pegs. Do NOT glue them in place.

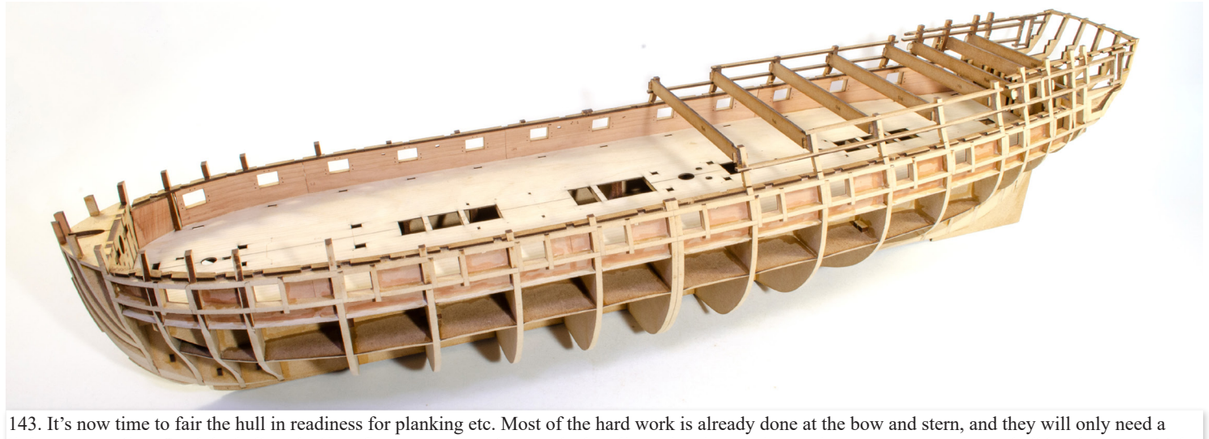


141. Your Indefatigable will now look like this.

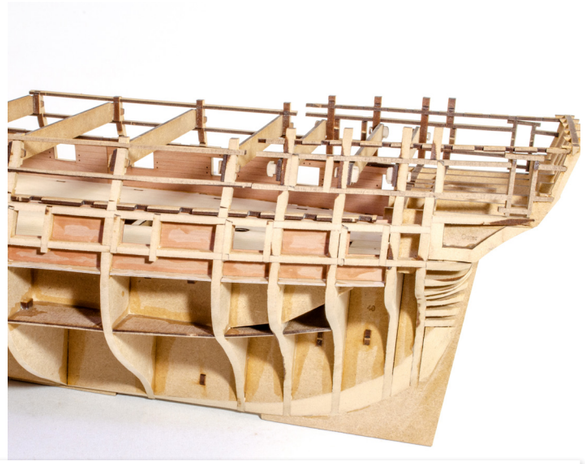


142. Now remove the wooden deck beams and set safely to one side until later.





143. It's now time to fair the hull in readiness for planking etc. Most of the hard work is already done at the bow and stern, and they will only need a little extra sanding. Sand the hull so the lines flow properly and use a plank to lie against it at various points to ensure maximum bulkhead contact. Make sure you sand the lower bulkheads in the deadwood area so that they blend into the MDF. IMPORTANT: Please wear a mask during this process. You only get one set of lungs, so look after them.

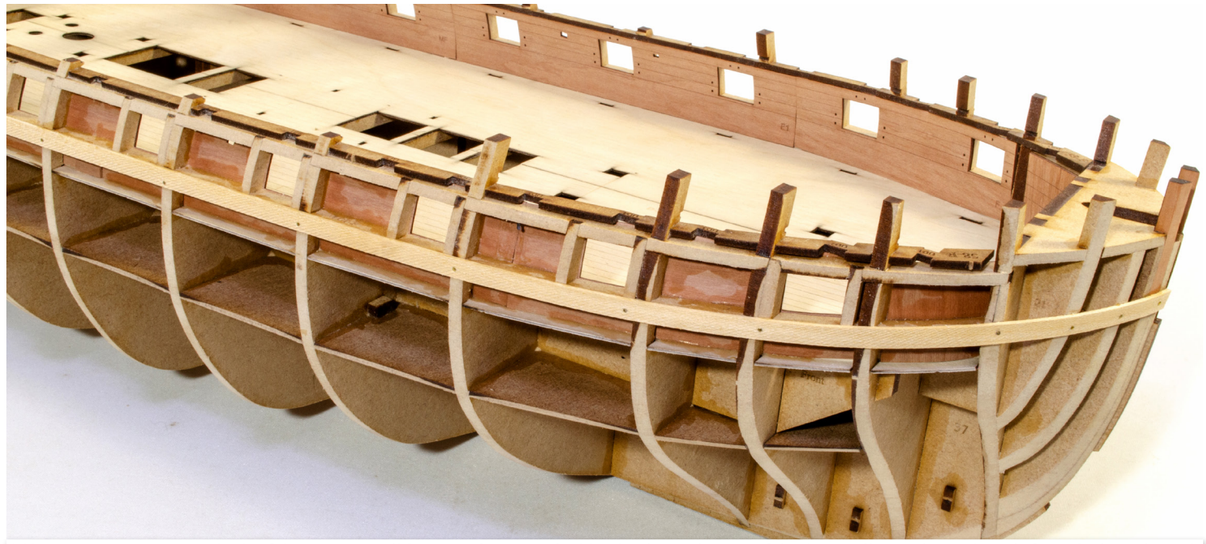


144. Here you see details of the sanding at both bow and stern. Note how there is almost zero char left on the bulkheads. If yours has char remaining, then you need to fair your hull more.

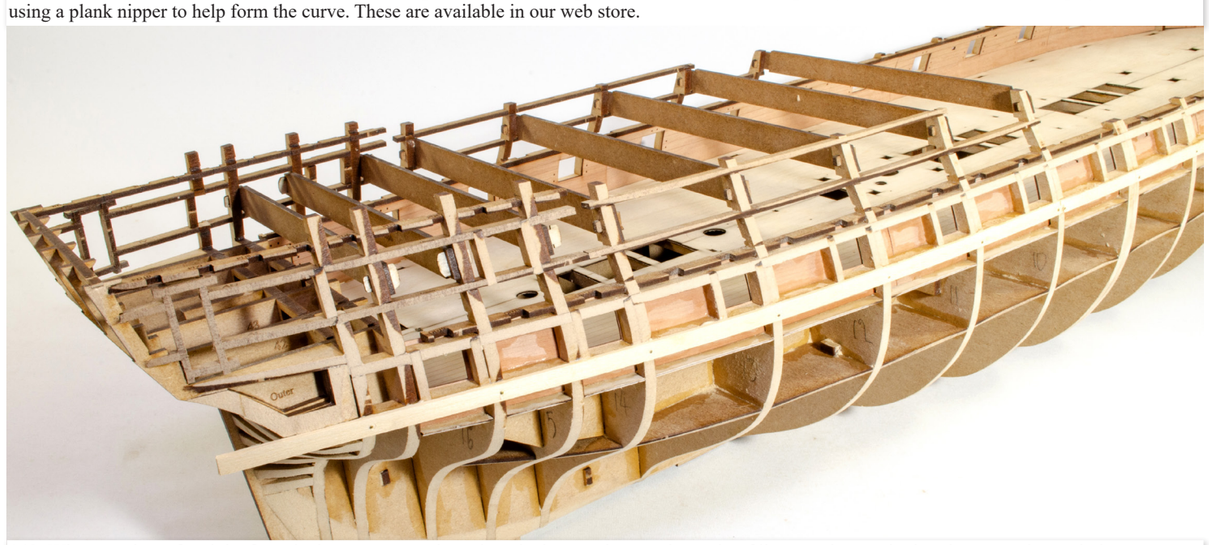
145. From the 1mm wood sheet, remove parts #248 and #251.

146. Clamp these into place on the hull (DO NOT GLUE). You may find it necessary to soak these parts for 30 minutes in warm water. If you do this, you MUST leave the parts for 24hrs to dry and to shrink to normal size again as pear expands a lot when wet. Note that the main bottom edge of this part lies along the top of the fore gun port frames.

147. Draw around the bottom fore area onto the bow section, as shown. Then draw on the vertical, which should lie over bulkhead #1.



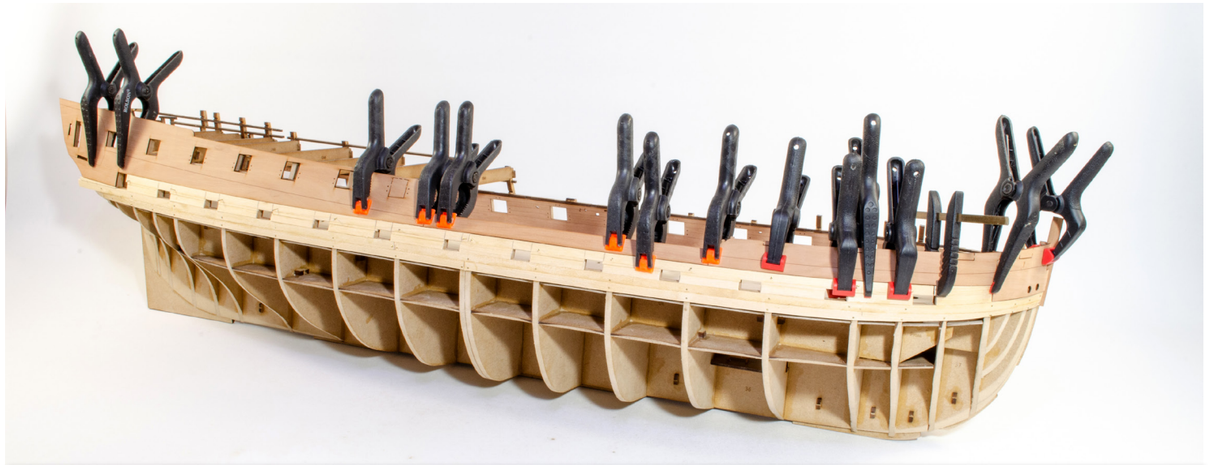
148. You can now remove both of those parts until later. As for now, planking begins. Take one of the 1.5mm lime strips and run it from the bow through to the fore bulkhead #9. This first plank will run along the bottom of the gun port frames. For forming the planks around the bow, we highly recommend using a plank nipper to help form the curve. These are available in our web store.



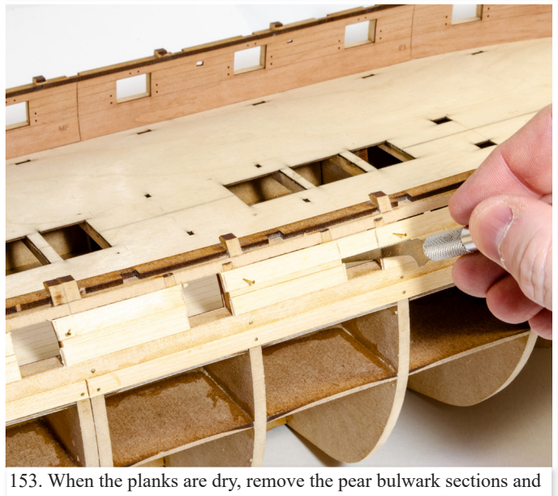
149. When you have fitted the first plank, you can continue that plank run using another strip of lime, again, continuing the run underneath the gun port frames. You can pin these planks into place until dry.

150. From the 1mm wood sheet, remove parts #246 and #250. These are the first layer of the outer bulwarks.

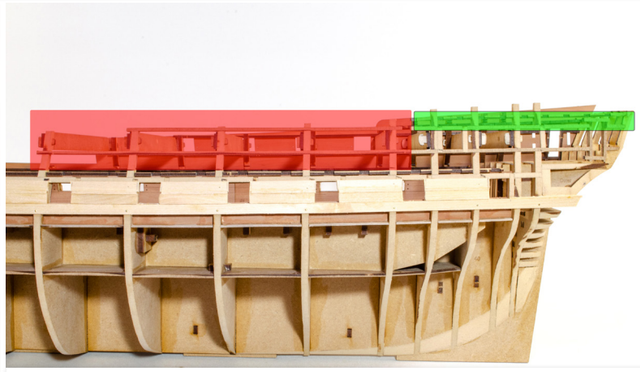
151. Also remove parts #247 from the 1mm wood sheet. The ‘R’ means it’s the rear of the part.



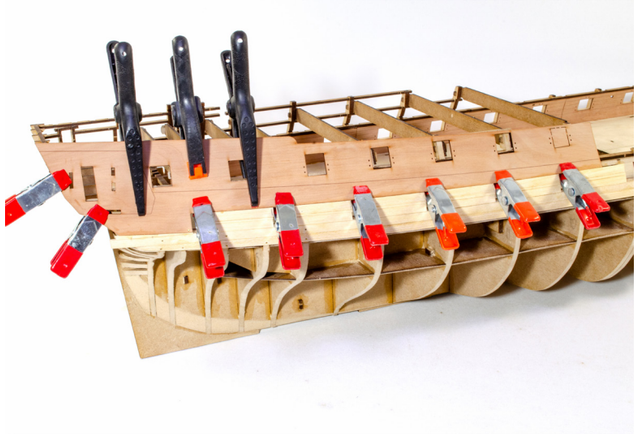
152. Clamp all these parts in place as shown (DO NOT GLUE). A good indicator of correct placement of the larger bulwarks are the gun port alignments at the rear, plus this section also runs along the top of the gun ports at its lower edge. Parts #247 simply sits between the large bulwark sections and the fore bulwarks that you can now temporarily clamp back in place. Getting all placements correct is vital as you will now run your second lime planks directly underneath these pear wood sections. These can run right over the gun ports, so you maintain a nice, complete curve. When dry, fill in the spaces between the gun ports with lime strip.



153. When the planks are dry, remove the pear bulwark sections and then use a razor saw to roughly open-up the gun ports. These will be trimmed closer a little later.

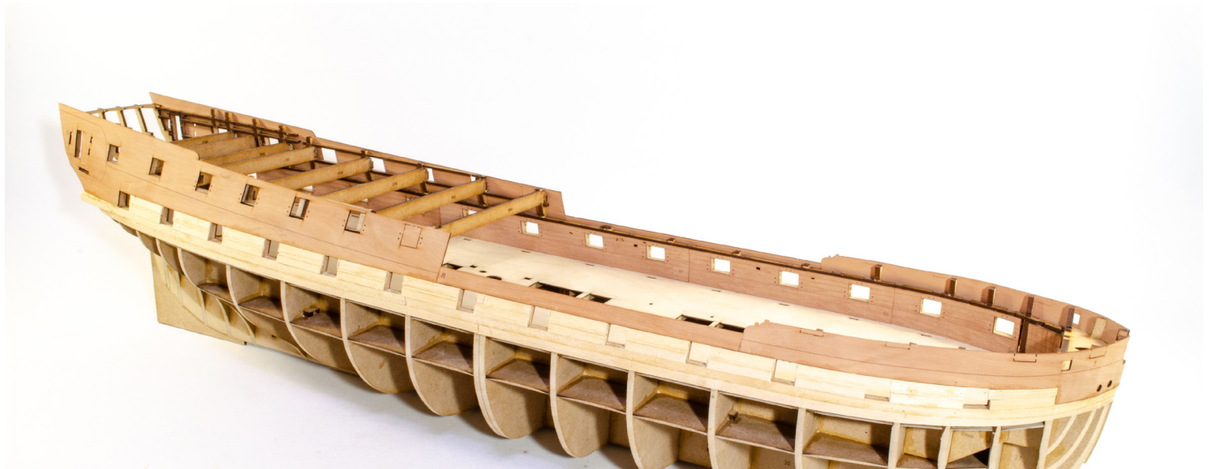


154. The larger side bulwarks can now be finally glued into place. IMPORTANT. This graphic shows a red area which will NOT be glued to the bulwark as these frames will eventually be removed later in construction. However, you can add a few tiny dots of glue in that area, just to tack the bulwark to shape during the build. NOTE: It is advised that you don't glue the area in green. This will later allow the upper bulwark to flex outwards to allow the poop deck bulwarks to be installed easily.



155. Here you can see a side bulwark glued and clamped into position. The gun ports make handy spots to use 2-inch clamps to hold down the lower edge of the bulwark.

156. Here are the fore bulwarks and waist bulwarks now glued and clamped into place. With the fore bulwarks, don't glue to the protruding bulwark ears as those will be removed later in the build.



157. On the prototype, we managed to add one more un-tapered plank length underneath the gun ports.

158. You will now need to start tapering the planks as you go. Make a mark on each plank where they naturally start to want to overlap the previous plank.

159. Angle and bevel the front of the plank so it sits nicely against the keel. Make a mark here about 1/3 way down the end. Draw a line between the two pencil marks, as shown.

160. Cut down that line to create your taper.

161. Again, a plank nipper is a great tool for helping form the curves in this 1.5mm lime. There's no need to soak to bend planks, and with any subsequent shrinkage that would occur.

162. The plank can now be glued and pinned into place. All planks must be glued to each other as well as to the bulkheads.

163. You will possibly have your own way of planking, and that is fine. This kit is designed for advanced builders. On the prototype, we've planked this simply. As I plank downwards, it becomes a little more difficult for the planks to lap flat against the bulkheads. At this point, I decided to then start planking at the bottom of the keel and progress upwards towards the planks I previously added. Note how I've left the planks short of the keel back edge at the stern. This will make it easier to taper the planks into the MDF.

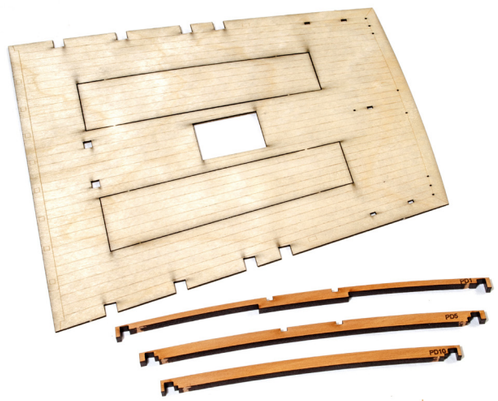
164. Sand the hull. This is a large and heavy hull, so we suggest using an electric palm sander to help with this task. You will also create a lot of dust, so don't forget to wear a mask. At this point, I also clean up the gun ports, so they are more or less the same size as the framing.

165. It will have been apparent that the side bulwarks protrude slightly at the stern. This is normal as we've left a small amount of timber to cater to variations in the hull. These are now marked in alignment with the stern, using a steel rule and pencil.

166. The back edges of the bulwarks are now trimmed to match the shape of the stern frames.

167. From the 2mm MDF sheet, remove part #44.

168. Glue this into place as shown.



169. Before any further stern work is done, it's a good time to test fit the poop deck and trim at the stern, if necessary. To do this, you will need three poop deck beams. These are PD1, PD5, and PD10. You will also need the 0.1mm ply poop deck.

170. First, the beams are temporarily fitted into their correct slots (DO NOT GLUE), which are numbered for ease. You will need to bevel the edge of each beam to suit the hull profile.

171. Bend the deck and slot into position in the notches in the bulwark ears. You may need to alter the width of the deck slightly for it to sit neatly along the tops of the beams. If the deck protrudes at the stern, sand it flush. On the prototype, the deck did not protrude, so this is just a mock-up image for you.

172. At this point, the basic quarter gallery frames will be assembled. From the 1mm wood sheet, remove parts #226 and #227. From the 2mm MDF sheet, remove parts #74 and #75.

177. This part will probably stand proud at the stern, so you now need to sand it flush, as we are with everything else in this area.

178. From the 0.6mm wood sheet, remove part 571

173. Temporarily fit the assemblies to the side of the hull (as denoted by the engraved section on the main bulwarks, and the slots to plug in the assembly), and use a pencil to mark where the assembly stands proud of the stern. You can now trim this so it matches the stern.

174. From the 2mm MDF sheet, remove parts #71 and #72 and bevel the long edge of them so they fit snugly onto assembly. You can see that they protrude slightly from the rear edge. Ensure the top rear corner of each of these parts is in line with the rear of the assembly, and the lower corner protrudes slightly. You can temporarily clamp these in position again and sand the 2mm MDF protrusions away, so they are flush to the stern.

179. Ok, if you had removed the quarter gallery frames, you can temporarily clamp them back in place. We now have to temporarily position the stern in place, and accurately. Again, DO NOT GLUE! The subsequent steps will allow us to accurately fit the lower counter. We are simply working from the top, downwards, in order to be able to fit that crucial part. With the stern part, you need to ensure that it is central to the hull. You can make some pencil marks on this and elsewhere to guarantee that. The part must also be standing above the top of the bulwarks by around 2mm. Try to make sure you achieve that within a ±0.5mm tolerance. Take your time here and accurately clamp the part. Adjust as necessary. You will also notice that when in the correct place, that the outer window will align with the pear quarter gallery assemblies on the window's inner edge. The angled bottom of the quarter gallery MDF will also align with the angle of the stern at that point. Our photo will help you with this placement.

180. From the 1mm wood sheet, remove part #405 (Inner).

175. From the 1mm wood sheet, remove part #235

176. Now temporarily fit (DO NOT GLUE) the part into place as shown. You will note the stern timbers have a small notch in them that this part will push into.

181. You now need to pin (NO GLUE), this part directly under the clamped stern. You can adjust the top curve a little, so it is snug up to the stern, perhaps bevel the edge a little. The bottom edge of this part should also be in line with the top of the lower curve and lie against where the curve changes angle. If necessary, sand/trim part #405 to match this.

182. From the 1mm wood sheet, remove part #402 (Inner). This is going to fit under the last part and is the ONLY part that we will glue in position at this stage. To make this part easier to fit, you can soak it in hot water for 30 minutes and then bind it to a circular tun until dry so it will maintain its curve. If you do soak this, leave it 24hrs to thoroughly dry and regain its original size.

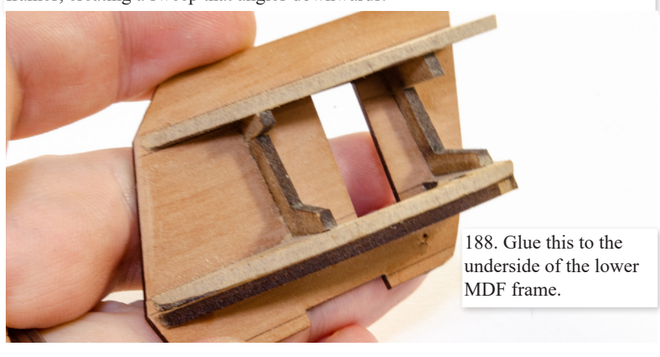
183. Sit the part on the hull, against the previous part #405, and push it into the stern curve. Use a pencil to draw a line along the bottom of this part, on the planking.

184. Cut along the pencil line you have just drawn and remove the lime planking from above the line. Now glue the inner part #402 into place, pinning it until the glue has set. Ensure the part is also central before you pin.

185. You can now remove the narrow counter and upper stern face. Those can be put away until later in the build.

186. Take the quarter gallery frame and sand between the two protruding MDF frames, creating a sweep that angles downwards.

187. From the 2mm MDF sheet, remove part #71.



188. Glue this to the underside of the lower MDF frame.

189. From the 2mm MDF sheet, remove part #72.

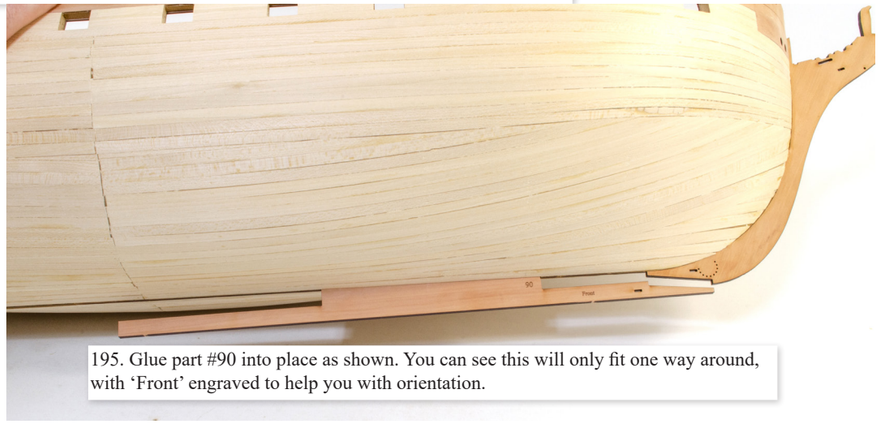
190. Glue this to the bottom slot on the quarter gallery assembly so that it's spaced evenly all along, in relation to the part you just glued into place. Leave to dry.

191. Now bevel between the last two parts you fitted, creating the lower angled half of the gallery.

192. From the 4mm wood sheet, remove part #93.

193. This can now be glued into position on the front of the hull. Do several test fits before you commit to glue. You may find a small rubber-tipped hobby hammer is useful for gently tapping this into place. Leave to thoroughly set.

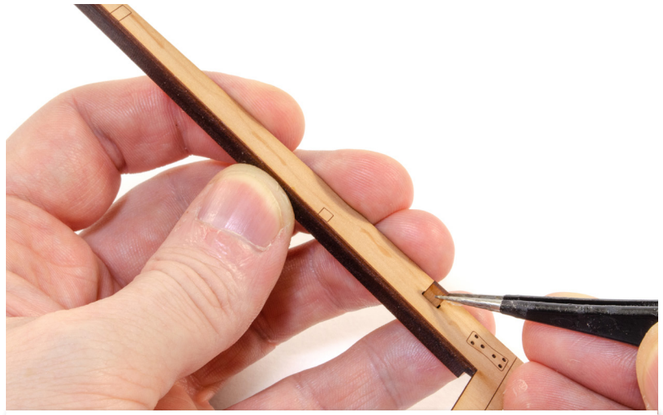
194. From the same 4mm wood sheet, remove parts #90 and #91. These will form the keel.



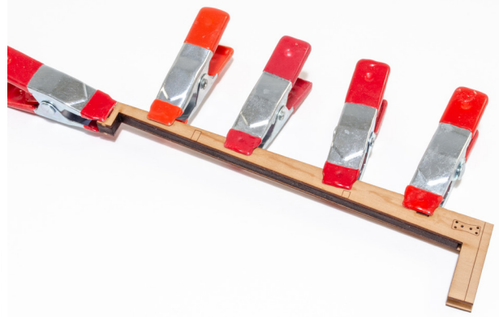
195. Glue part #90 into place as shown. You can see this will only fit one way around, with 'Front' engraved to help you with orientation.

196. Now glue part #91 into place, and also to the part #90 that you jut fitted. Ensure parts #90 and #91 are perfectly in line with each other. Clamp as necessary.

197. From the 4mm wood sheet, remove part #92. This is the stern/rudder post. From the 1mm wood sheet, remove parts #433 and #434. These are the external facings for the rudder post. Also remove two pegs #441 from the same sheet.



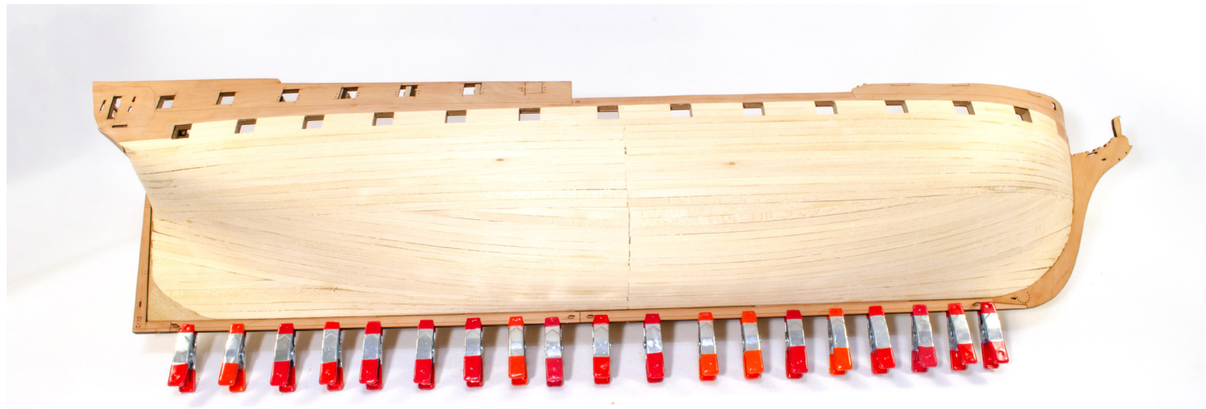
198. Glue the facings to the rudder post, one either side so the engravings face outwards, and glue in the pegs to help with alignment.



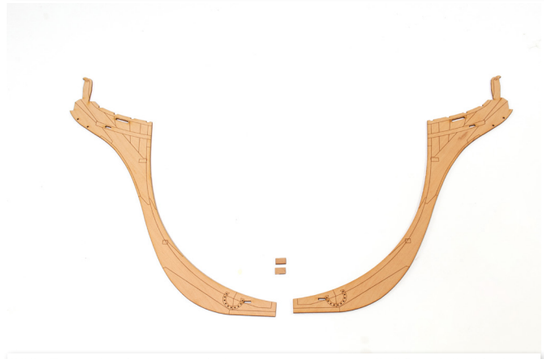
199. Clamp and leave to thoroughly dry.

200. Slot and glue the assembly into place as shown. The outer facings will overlap the keel and must be glued to that too.

201. From the 1mm wood sheet, remove parts #437 and #438. These parts are engraved, with the narrower strip being at the bottom. Glue part #437 to the forward side of the keel. You will see this is slightly wider at the bow side.



202. Now glue part #438 to the rear of the keel. Use pegs #441 to keep alignment. Clamp until dry, and then repeat the process on the opposite side of the keel with parts #439 (forward keel) and #440 (rear keel).



203. From the 1mm wood sheet, remove parts #435 and #436. Also remove two more pegs #441.

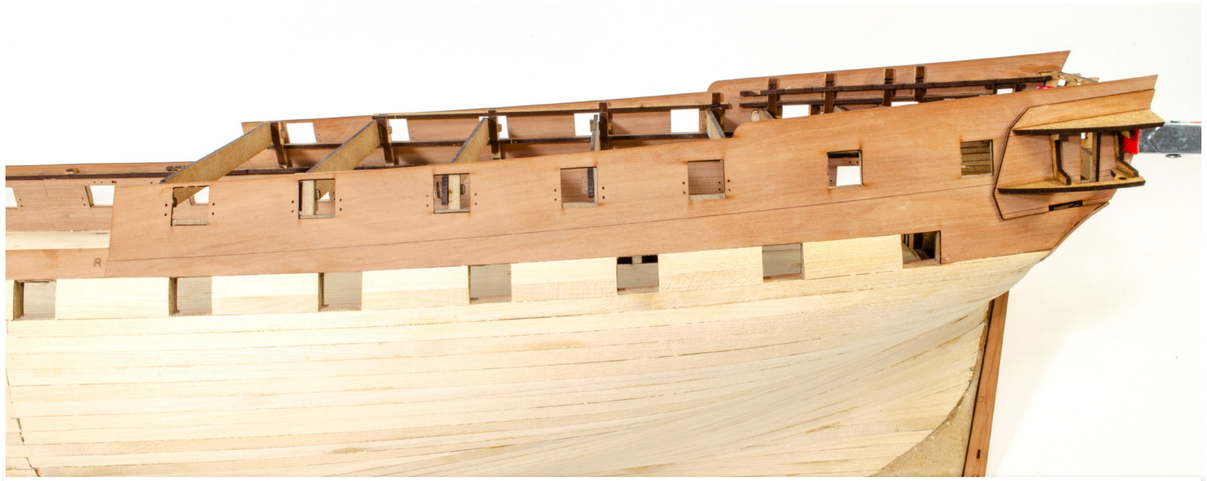
204. Take part #435 and glue/peg into position as shown. Use lots of clamps to ensure full contact with no curling. Leave until dry, then glue/clamp part #436 to the opposite side.

205. Remove both parts #228 from the 1mm wood sheet. These are identical but will be used on opposite sides of the bulwarks.

206. Carefully align and glue each part to the upper outside bulwarks at the bow. These will need to be clamped well to ensure full contact. NOTE: You may wish to soak these in water for 30 mins and temporarily clamp into position first. If you do this, then you MUST leave the parts to dry for 24hrs first before gluing them as they will have expanded during soak.

207. This is how the parts will look when fitted.

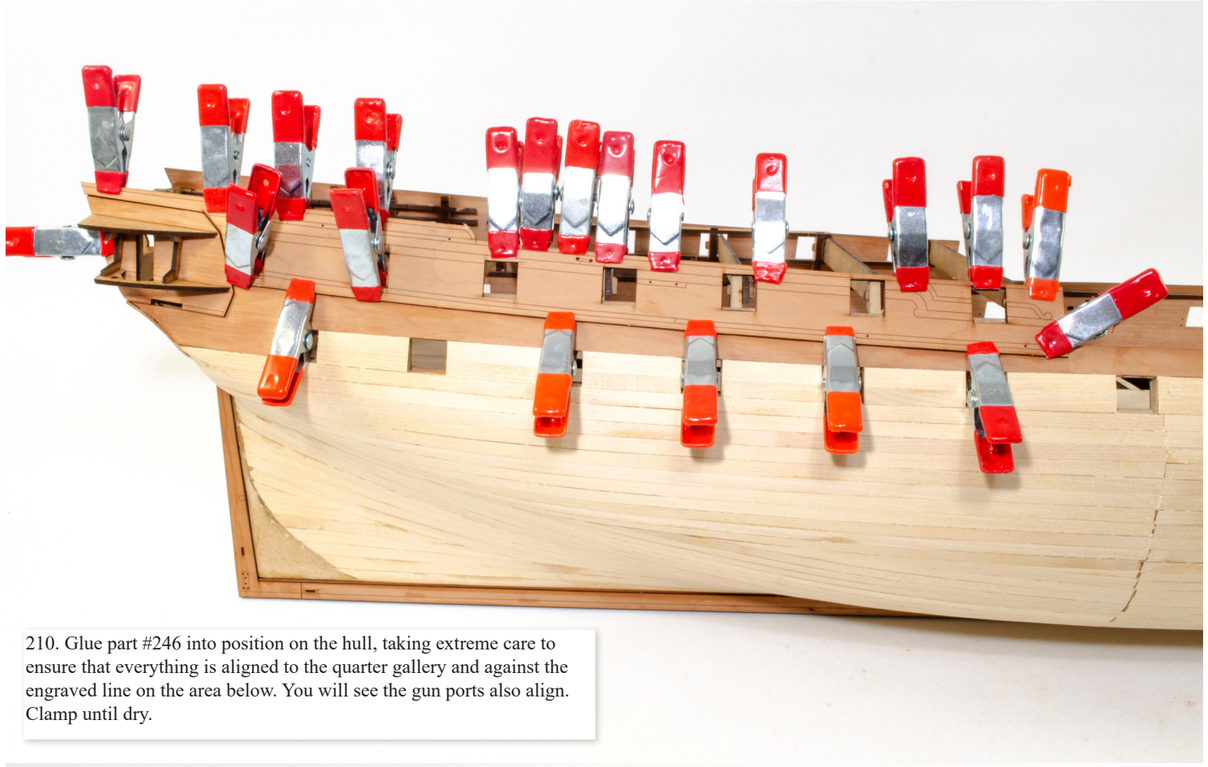
208. Remove parts #246 and #250 from the 1mm wood sheet. These are the outer, main bulwarks.



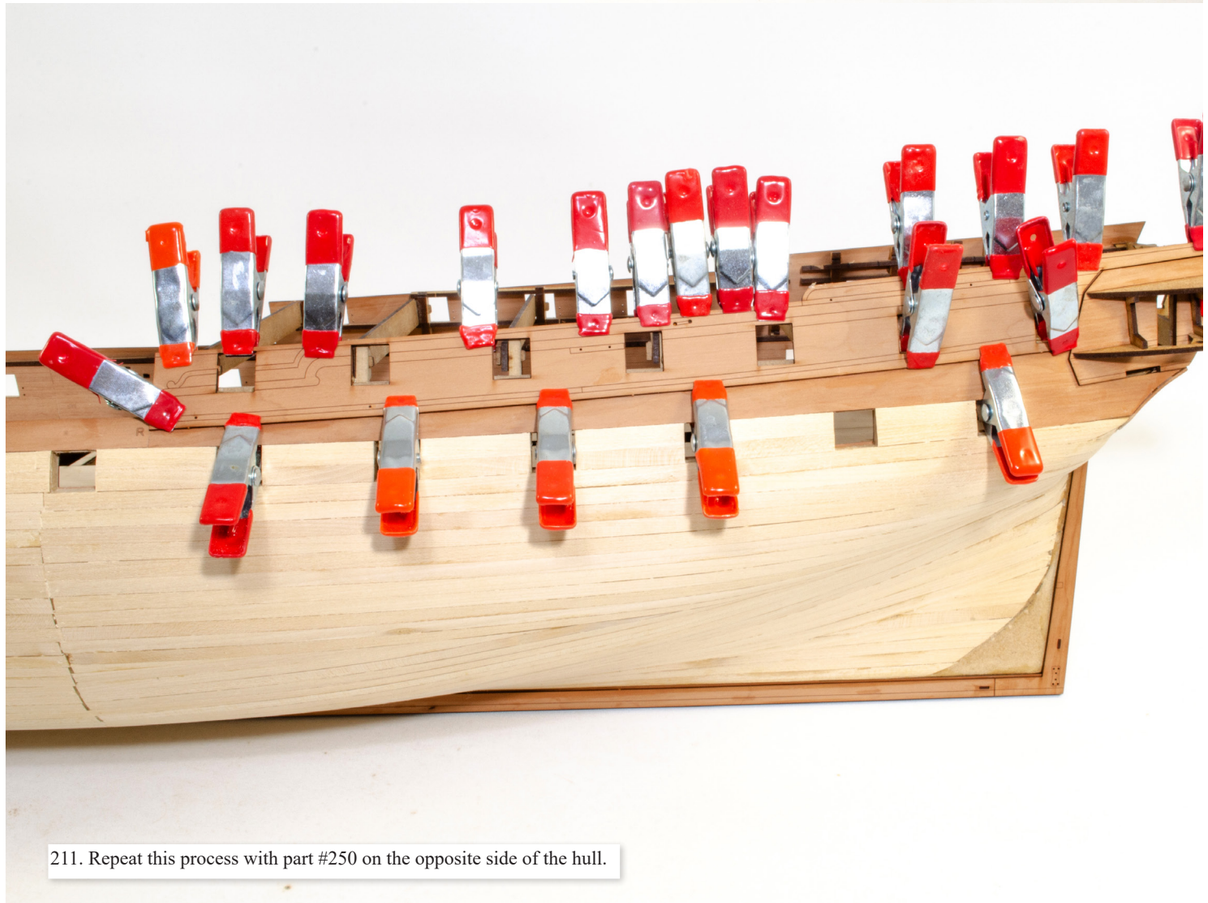
209. Before you attempt to glue these, TEMPORARILY clamp the quarter gallery skeleton assemblies into place on your hull. For the moment, these will just help with bulwark alignment and will be removed afterwards for later use.

212. From the 0.6mm wood sheet, remove part #570.

213. Glue, clamp/pin this into place at the stern as shown, covering the previous lower counter.

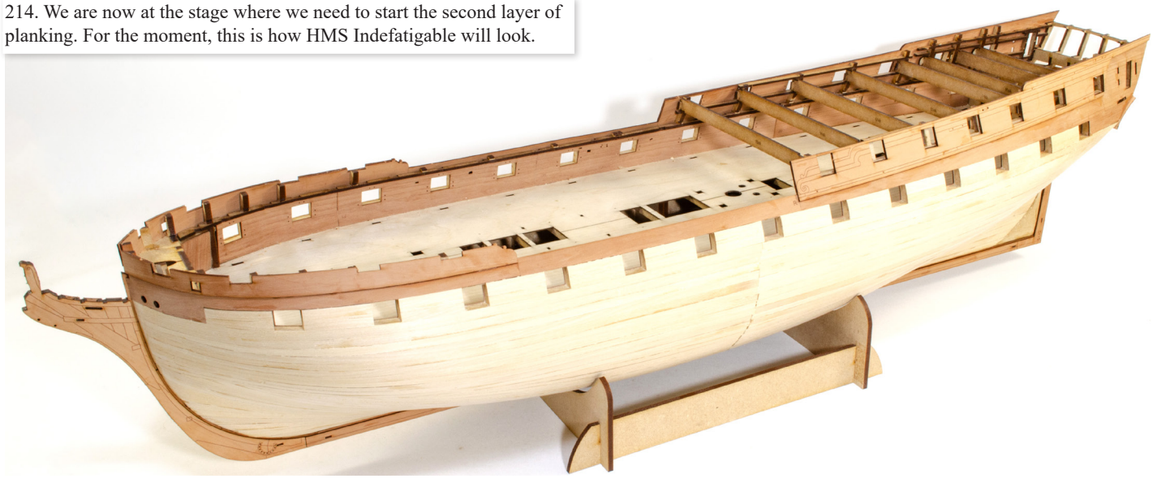


210. Glue part #246 into position on the hull, taking extreme care to ensure that everything is aligned to the quarter gallery and against the engraved line on the area below. You will see the gun ports also align. Clamp until dry.

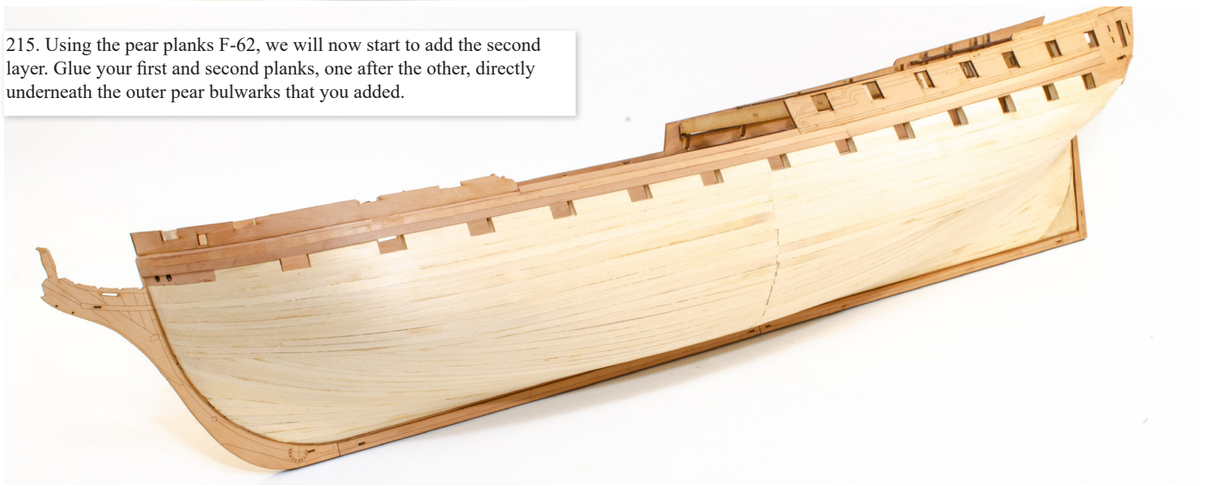


211. Repeat this process with part #250 on the opposite side of the hull.

214. We are now at the stage where we need to start the second layer of planking. For the moment, this is how HMS Indefatigable will look.



215. Using the pear planks F-62, we will now start to add the second layer. Glue your first and second planks, one after the other, directly underneath the outer pear bulwarks that you added.



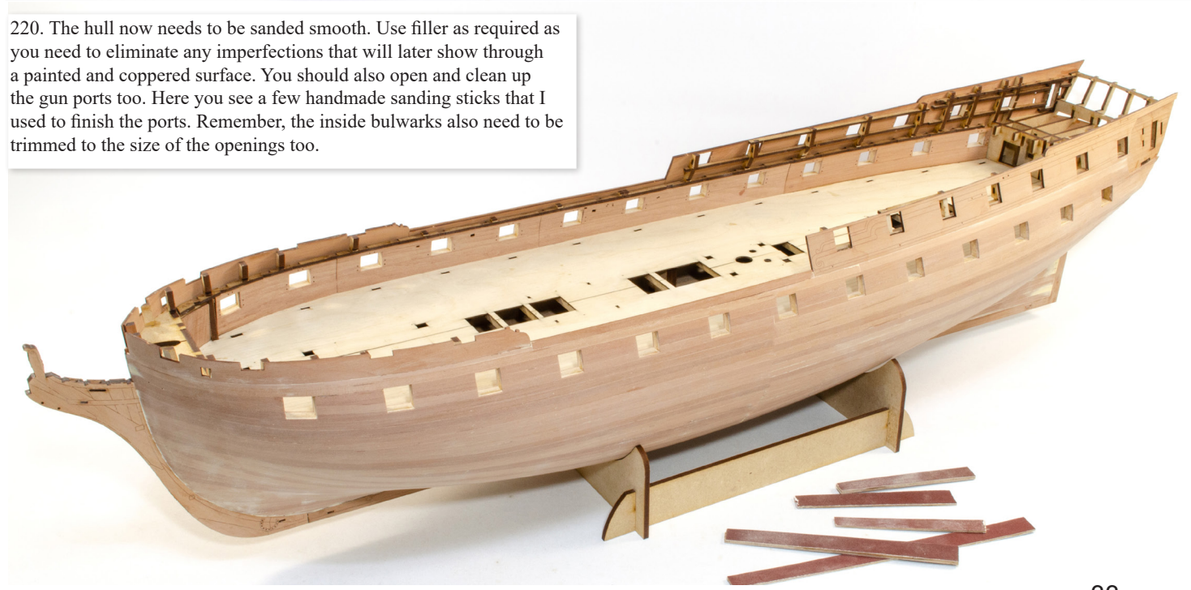
216. Referring to plan sheet which shows the main wale installation, make a pencil mark below the middle of each gun port, using the measurements on that plan. Make these as accurate as you can.

217. Now add another pear strip along the underside of those marks. The front of this plank will lie in line with the top of the prow. This plank will mark the position of the upper wale plank you will later add, so this is why the position of this plank is important.

218. Here you can see how the plank partially lies over the rear two gun ports.

219. Now plank the whole hull as before, tapering as you go. Remember to mark the positions of the hawse holes at the bow, drilling holes so you can open the hawse up properly later. For our prototype, we used Titebond wood glue for all second planking.

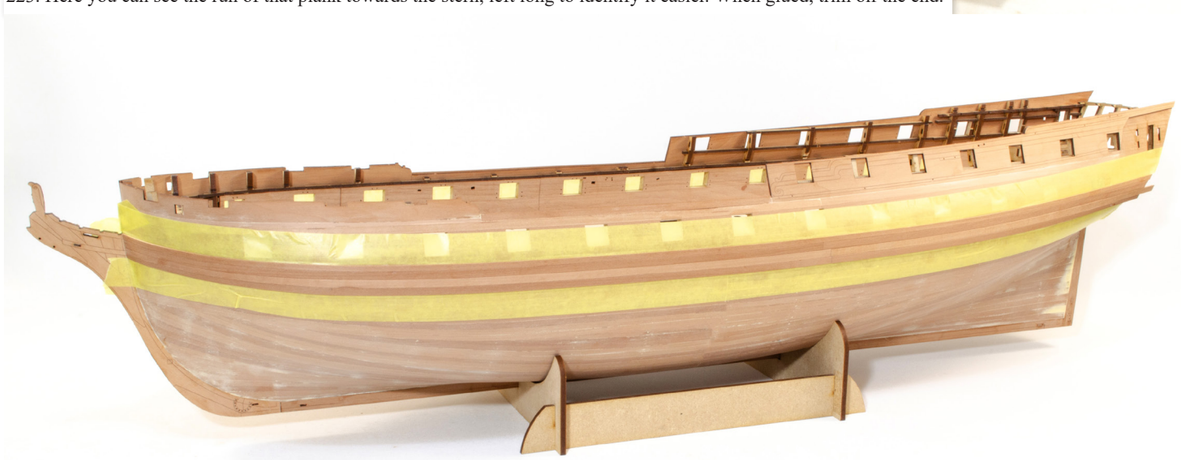
220. The hull now needs to be sanded smooth. Use filler as required as you need to eliminate any imperfections that will later show through a painted and coppered surface. You should also open and clean up the gun ports too. Here you see a few handmade sanding sticks that I used to finish the ports. Remember, the inside bulwarks also need to be trimmed to the size of the openings too.



221. This is a close up showing the position of that first plank you added, as this is where the wales will now be started.

222. Glue a 4mm x 1mm pear strip F-63 to the hull, following the position of that plank you earlier added to the positions below the gun ports.

223. Here you can see the run of that plank towards the stern, left long to identify it easier. When glued, trim off the end.



224. Underneath that plank, add three more 5mm wide pear planks, as you used for the main hull planking. When complete, mask either side of the wales, and sand the wales smooth.

225. Open the rear two gun ports by cutting into the wales.

226. Indefatigable will now look like this. It's now time to work on the interior.

227. There are four internally lined gun ports; one at the bow and three towards the stern. These are lined as they will eventually be fitted with open gun port lids. Here you see the parts for lining the bow port. These are parts #547 and #548, to be found on the 0.6mm wood sheet.

228. First fit parts #548 to the top and bottom of the forward most gun port. Now fit parts #547 to the vertical inner walls. All parts should lie about 1mm in from the front of the port, creating s a recess. You will need to trim and adjust all gun port lining parts, for all ports.

229. These are parts #549 and #550 for lining the insides of gunport #11.

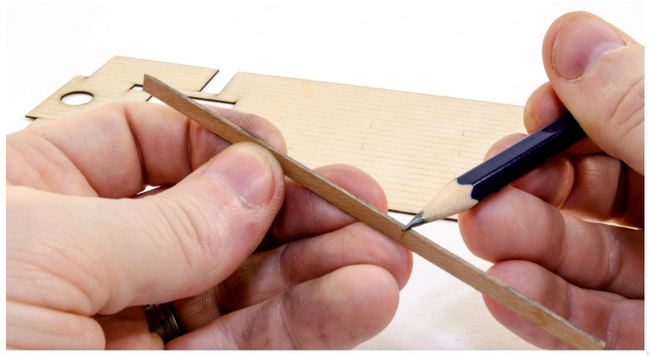
230. These are parts #551 and #552 for lining the insides of gunport #12.

231. These are parts #553 and #554 for lining the insides of gunport #13.

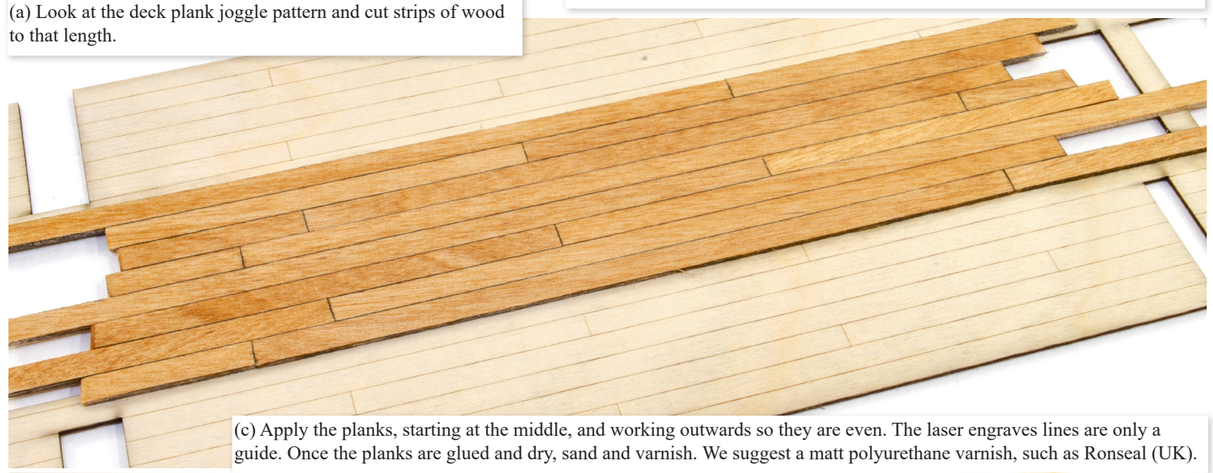
232. Here you see ports #11, #12 and #13 with their liners fitted.

233. It is up to you now whether you wish to paint the inner bulwarks at this stage. As this model will show the alternative laser-engraved maple deck, we opted to paint it now. If you are using the standard deck planking option in this kit (planks F-66), you may wish to paint the bulwarks after planking. In this photo, you see the bulwarks masked off to allow only the centre band of the bulwarks to be painted. For this we have used Plastikote Red Oxide Primer on top of a varnished middle area, followed by a couple of light coats of Tamiya Flat Red, applied with an airbrush. The Plastikote was first decanted from an aerosol, let to de-gas, and then sprayed from an airbrush for more precision.

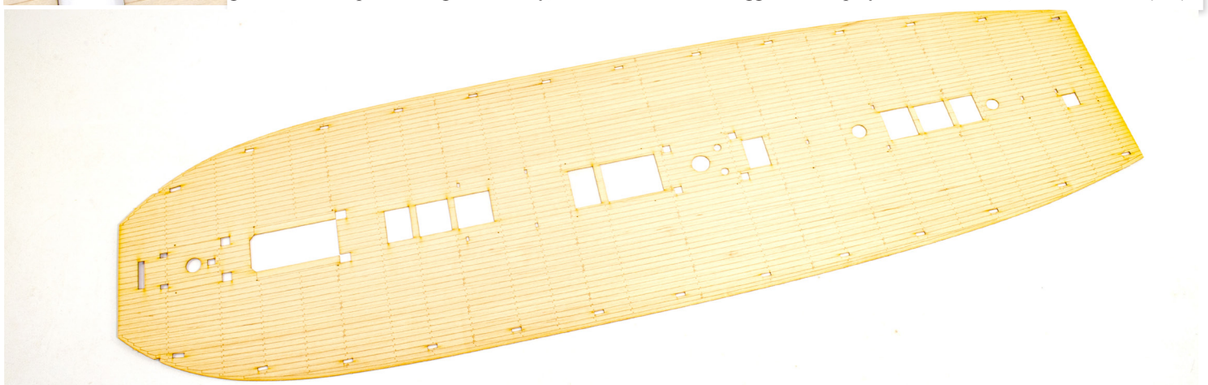
234. DECK PLANKING INSTRUCTIONS: For all deck planking, we supply the highest grade of Red Alder.
(a) Look at the deck plank joggle pattern and cut strips of wood to that length.



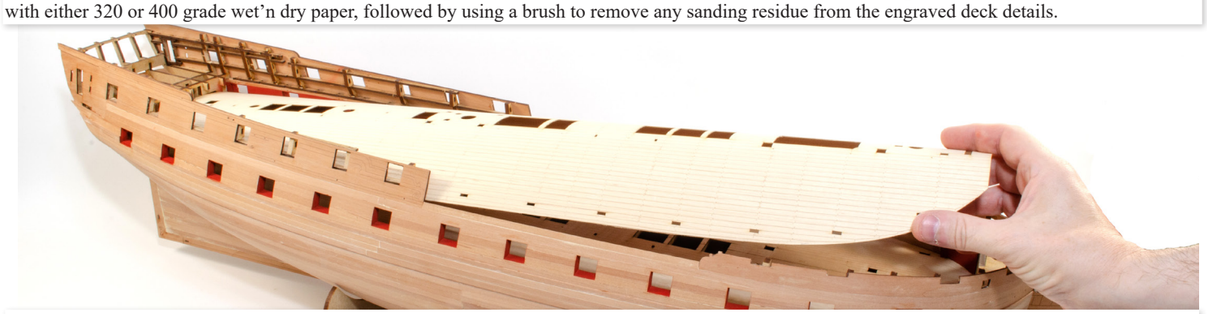
(b) Use a soft pencil to colour the edges and ends of each strip. This will simulate caulking.



(c) Apply the planks, starting at the middle, and working outwards so they are even. The laser engraves lines are only a guide. Once the planks are glued and dry, sand and varnish. We suggest a matt polyurethane varnish, such as Ronseal (UK).

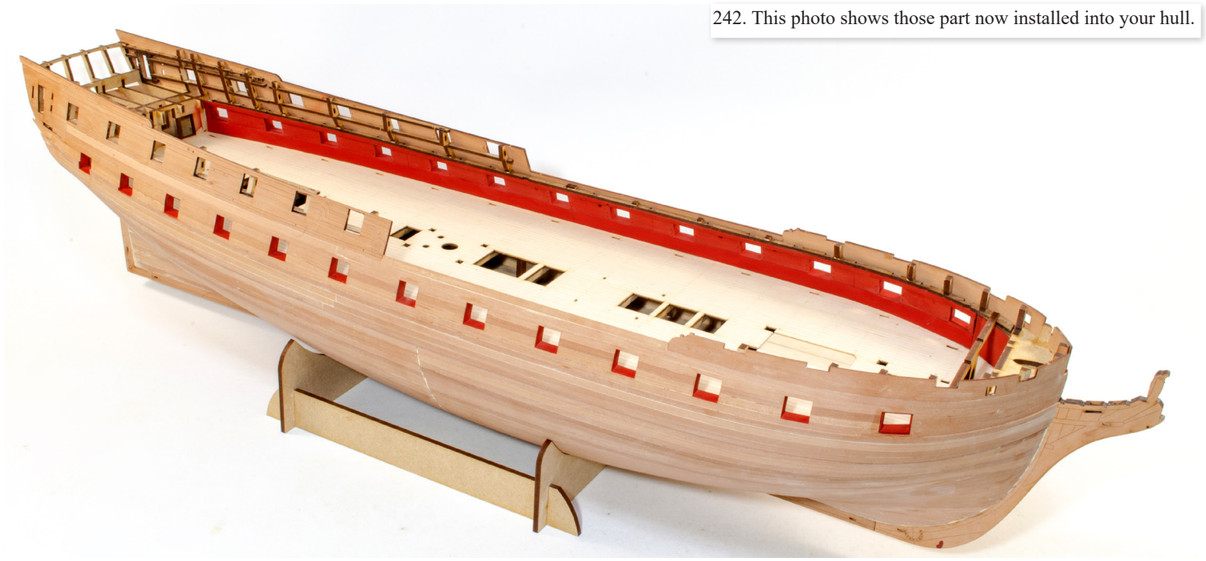


235. OPTIONAL: If you opt to use the optional laser-engraved maple deck, then you will now need this part. It's a good idea to gently smooth the deck with either 320 or 400 grade wet'n dry paper, followed by using a brush to remove any sanding residue from the engraved deck details.

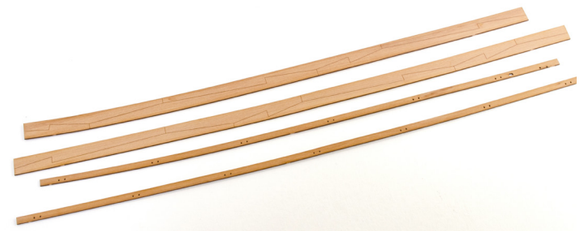


236. OPTIONAL: Test fit the deck to ensure a good fit. If necessary, sand the edges to make sure it lies down perfectly on top of the underlying ply deck. Apply glue to the ply deck area, ensuring that you have glue running around the various port openings etc. Then gently bend the maple deck and sit in in place, rubbing your fingers around the deck to make sure the glue is squeezed around the connection and the deck lays flat.

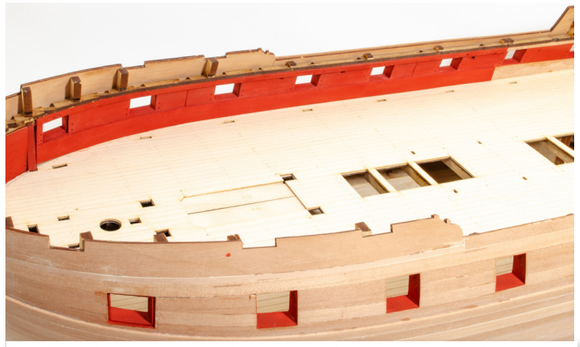
237. OPTIONAL: If necessary, apply a series of weights on the deck until dry. Applying clamps around the edges will make sure than the deck is down in place all the way around the bulwark area.



242. This photo shows those part now installed into your hull.



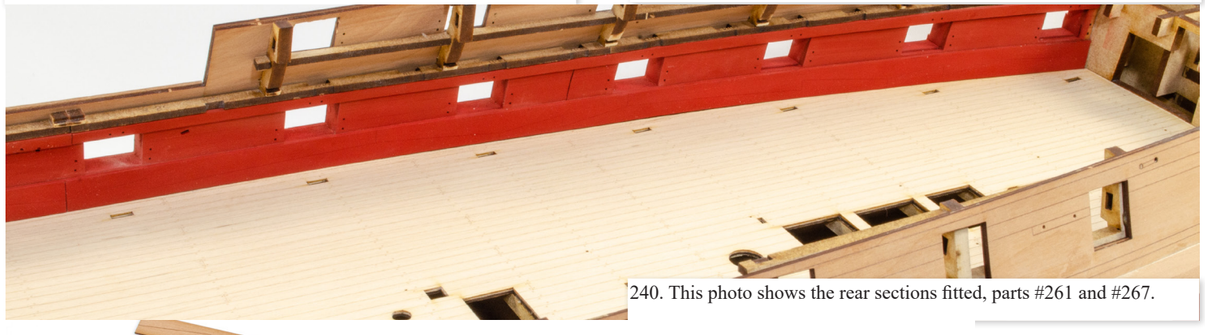
238. From the 1mm wood sheet, remove parts #260 and #261, and parts #266 and #267. These are the spirketting which runs under the gun ports, and the upper ledge which runs above the ports. Each section which runs full length of the inner bulwark, is split into two parts each for ease of fitting. NOTE: On the parts sheet, there is an 'F' and 'R' engraved onto the sheet. These indicate the foremost point of both the upper and lower, and the rearmost point. Write these idents onto the back of the parts.



239. Varnish the exterior of the parts and then paint them in the same paint you used for the interior bulwark. Glue these into position as shown on the plan. This photo shows the forward halves in place, which are parts #260 and #266. It's important to try to align the holes in the upper ledge, with the holes in the underlying bulwark.

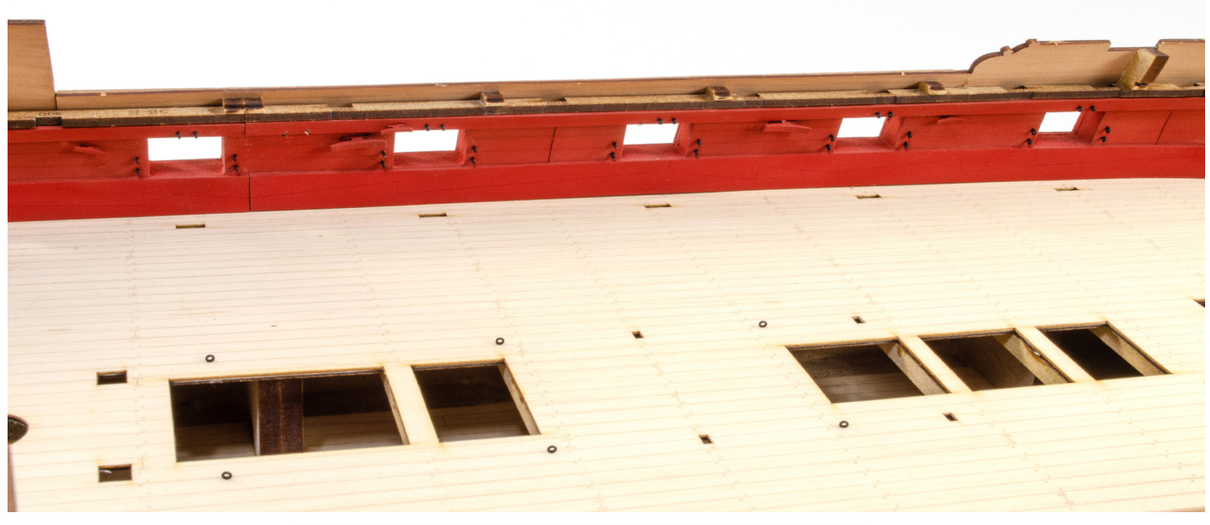
243. Use a 0.8mm or 1mm drill bit to drill through the holes in the upper ledge. This is just to make sure that if there's any tiny misalignment, that the eyelets will still fit later. Also drill through the hole positions on the inner bulwark/upper ledge, through to the outside, using a 1mm drill. This is for part of the rigging process. These holes are around the area where you will fit the cleats in the next two stages.

244. From the 2mm wood sheet, remove parts #122. From the 1mm wood sheet, remove parts #277. These can be painted red, as per the inner bulwarks.



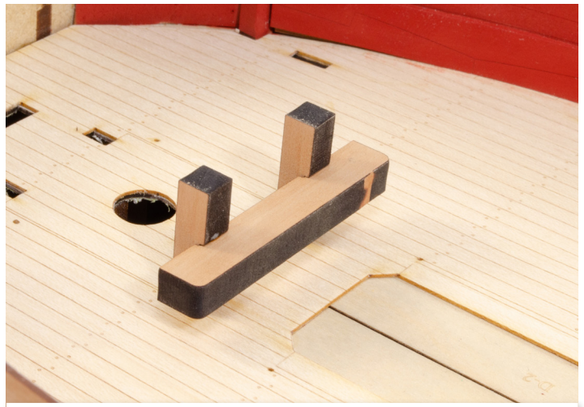
240. This photo shows the rear sections fitted, parts #261 and #267.

241. From the 1mm wood sheet, remove parts #262 and #263, and parts #264 and #265. Again, paint red and fit into the opposite side of the hull.

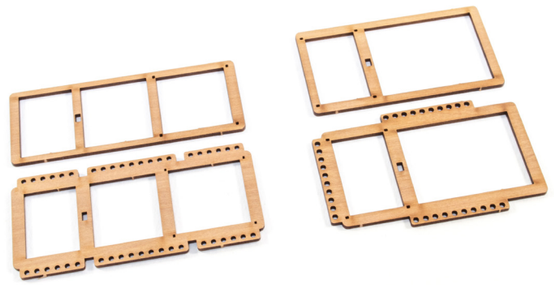


245. Glue these into place on the inner bulwarks, as shown here and on Plan Sheet 3: Gun Deck and Upper deck beams.

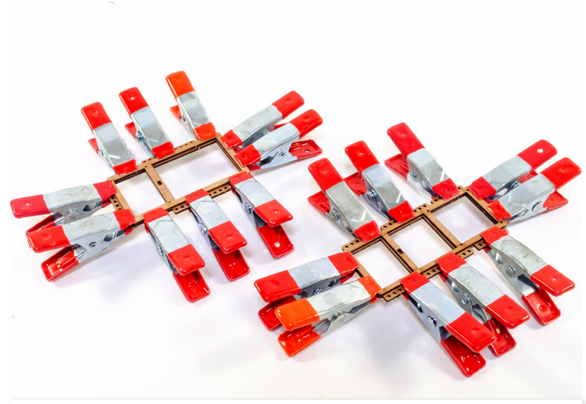
246. From the 6mm wood sheet, remove both parts #79, and part #80.



247. Push parts #79 down into the hull until they lock into place (DO NOT GLUE). Now glue part #80 across them. Leave this to dry and then remove the assembly until later.

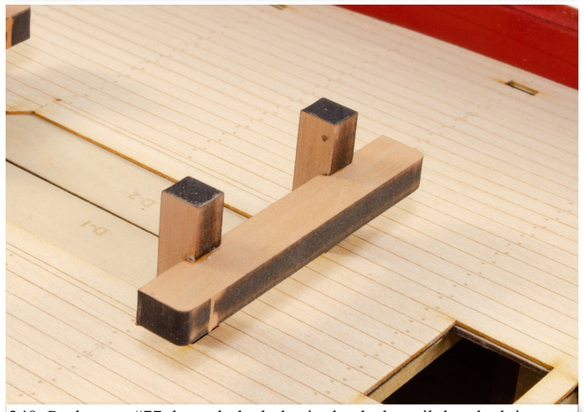


252. From the 1.5mm wood sheet, remove parts #187 and #188, and parts #191 and #192.

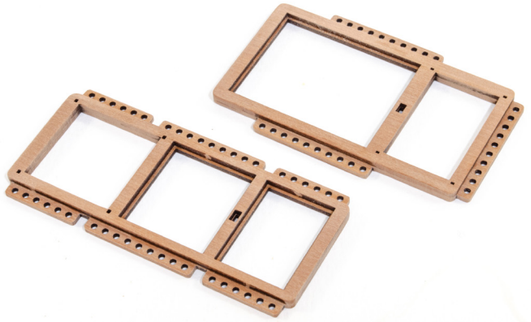


253. Glue each set together as shown here and thoroughly clamp until set.

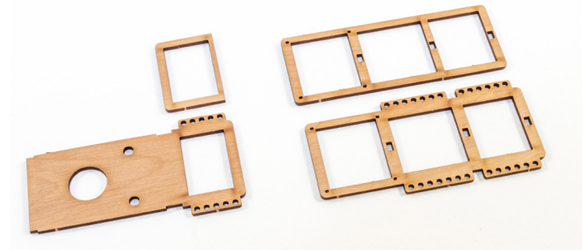
248. From the same 6mm wood sheet, remove both parts #77, and part #78.



249. Push parts #77 through the holes in the deck until they lock into place (DO NOT GLUE), and then glue part #78 across them. When dry, remove the assembly.

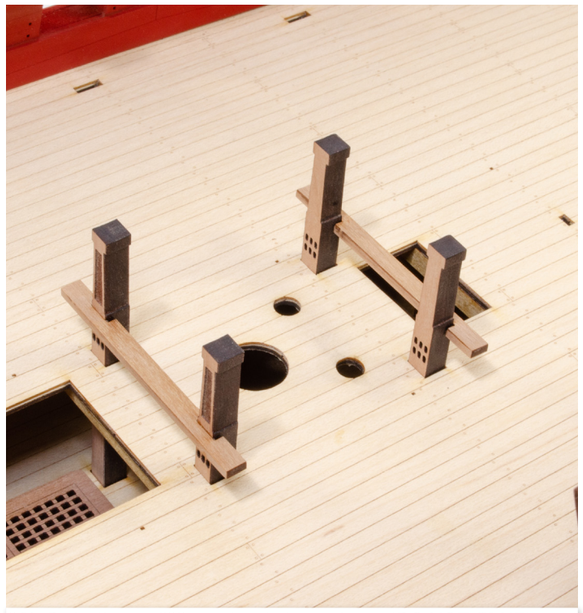


254. After char removal, the parts will look like this.

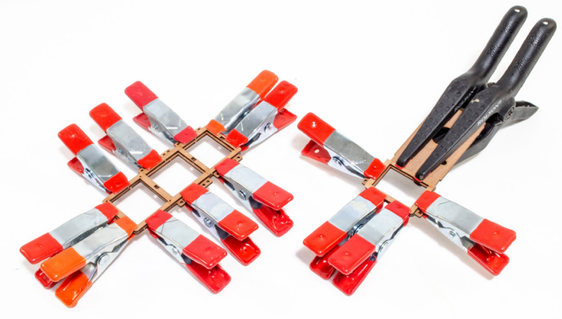


255. From the 1.5mm wood sheet, remove parts #193 and #194, and parts #196 and #197.

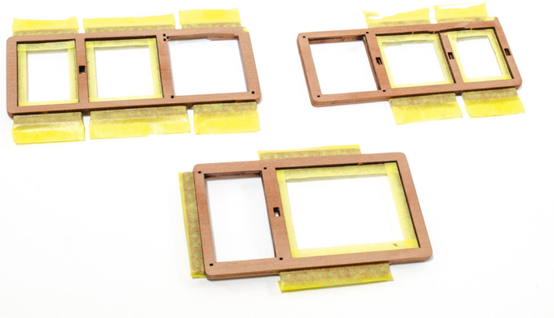
250. From the 5mm wood sheet, remove the four parts #88. From the 2mm wood sheet, remove both parts #126.



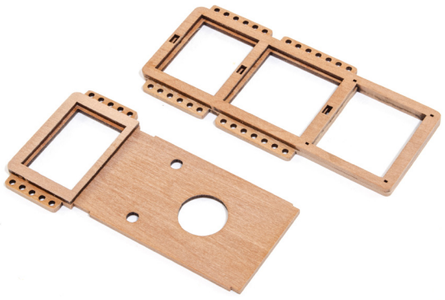
251. Push all parts #88 into their holes as shown (DO NOT GLUE), and then glue parts #126 across them. Leave to dry and then carefully remove the assemblies and set them to one side.



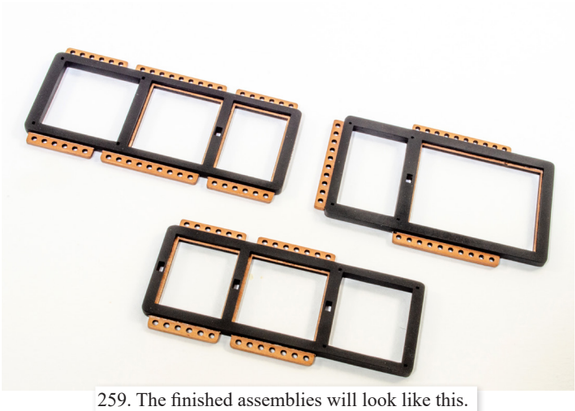
256. Glue the parts together as shown and thoroughly clamp until set.



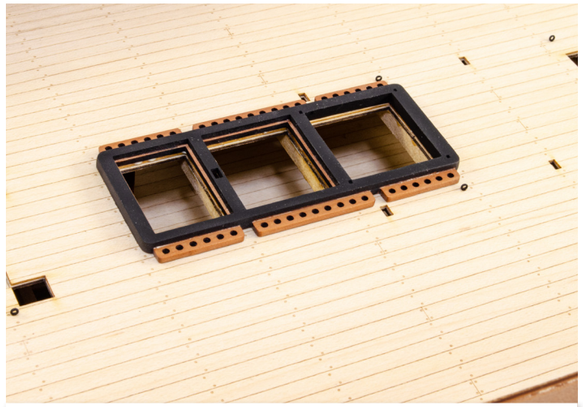
258. Mask the cannon ball garlands and the openings that will be fitted with a grating. Keep the stairway openings unmasked. Paint the assemblies in black.



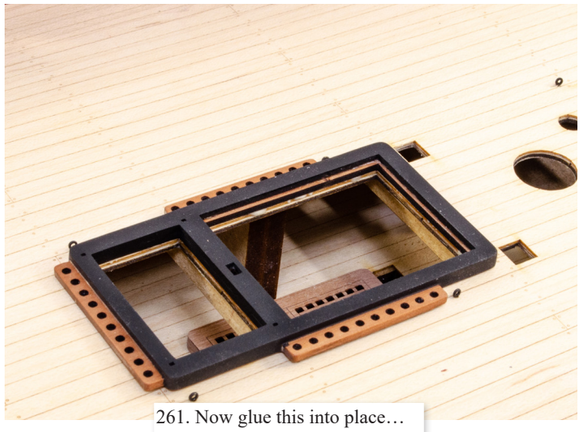
257. The assemblies will now look like this.



259. The finished assemblies will look like this.



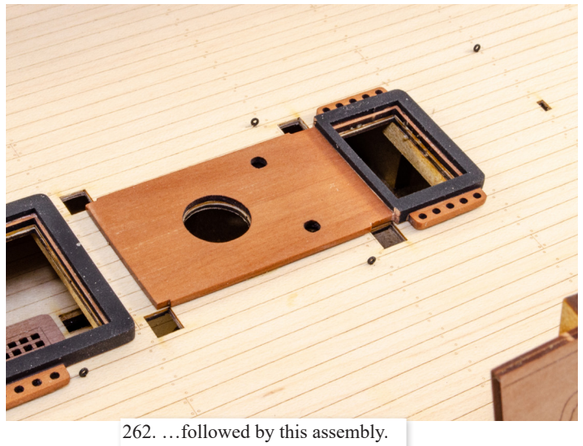
260. Begin to fit the assemblies to the main gun deck, starting here.



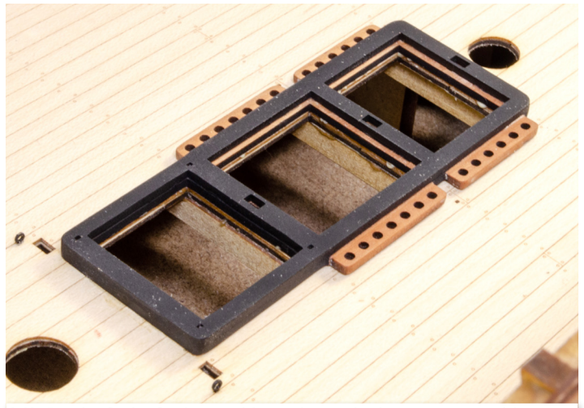
261. Now glue this into place…

266. Now take the sides of the stairway. These aren't the engraved ones.

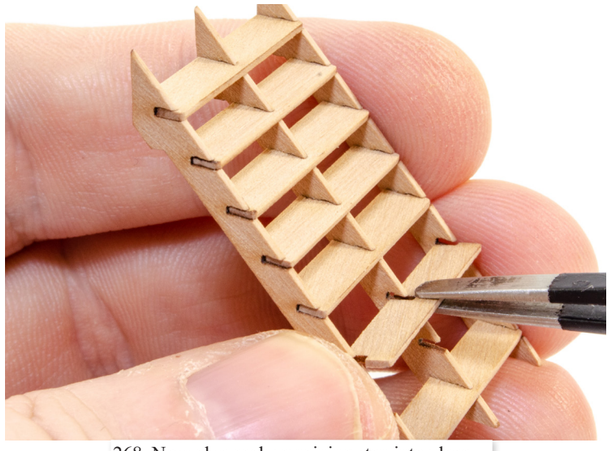
267. Glue into place onto the steps.



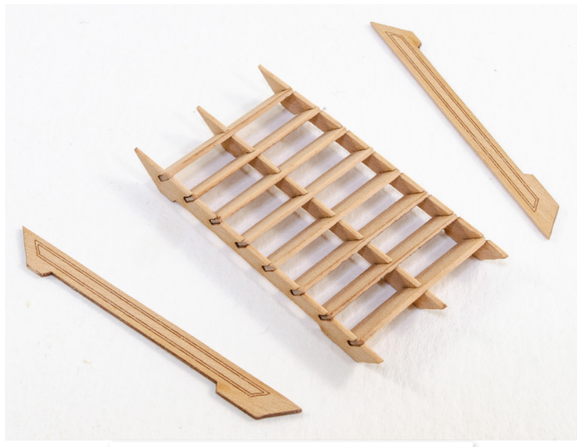
262. …followed by this assembly.



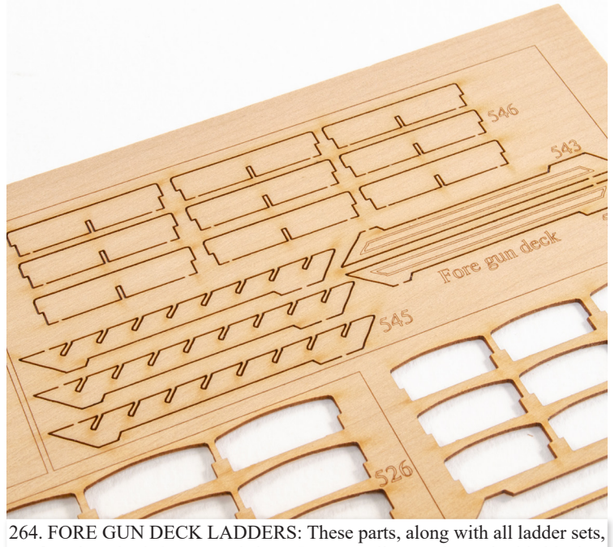
263. Lastly, fit the final assembly as shown, in the rearmost position. From the 1.5mm wood sheet, also remove part #200 and glue into place as shown in the top right of the photo.



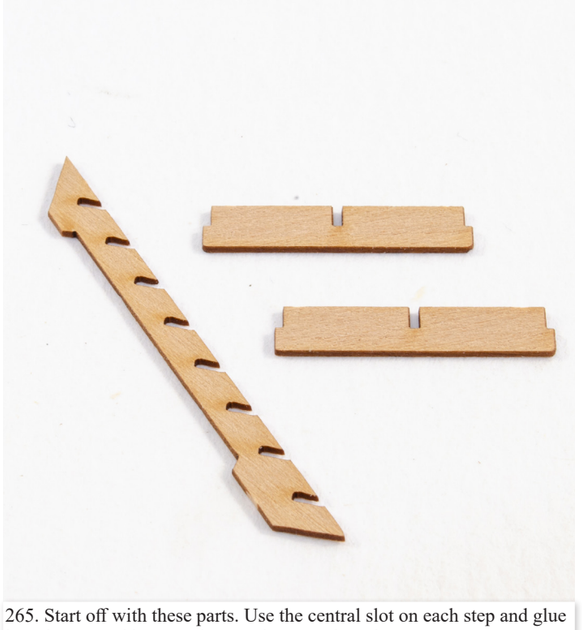
268. Now glue each remaining step into place.



269. Lastly, take the engraved outer faces…

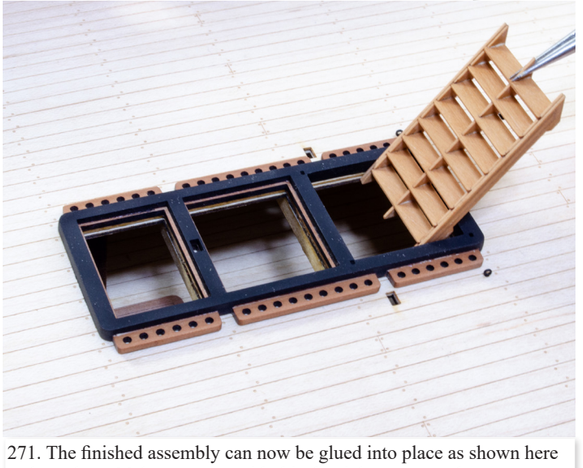


264. FORE GUN DECK LADDERS: These parts, along with all ladder sets, are found on the 0.6mm wood sheet. Remove all parts shown in this block.

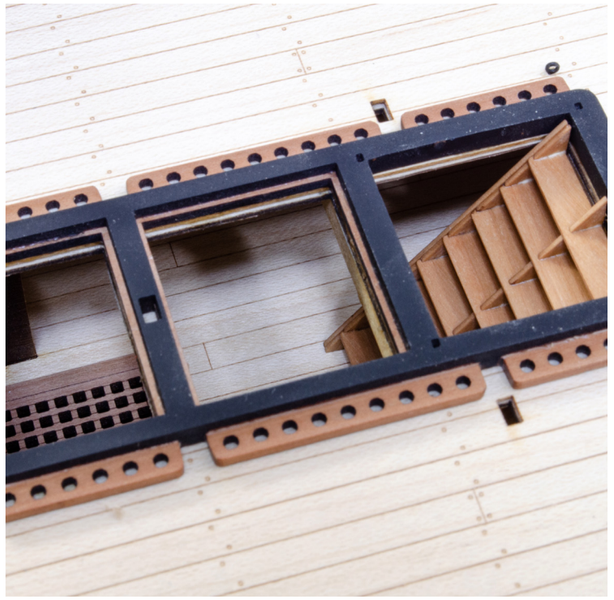


265. Start off with these parts. Use the central slot on each step and glue into the top and bottom slots on the central section.

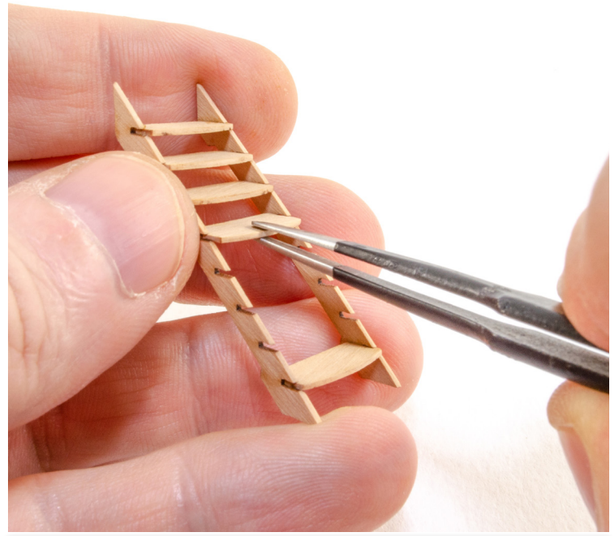
270. …and glue them into place.



271. The finished assembly can now be glued into place as shown here and on plans. Make sure you with this the right way round.

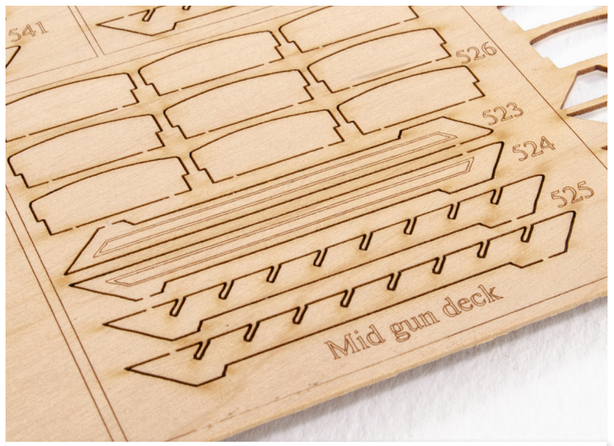


272. From the 1.5mm wood sheet, remove parts #189 and #190 and glue into place as shown here.

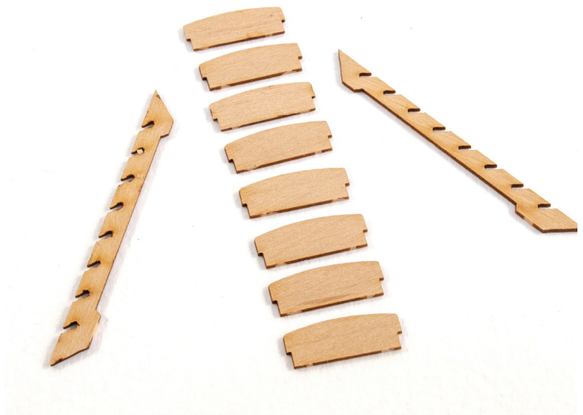


277. Now slot/glut all the other steps into place.

278. Now glue the sides onto the ladders.

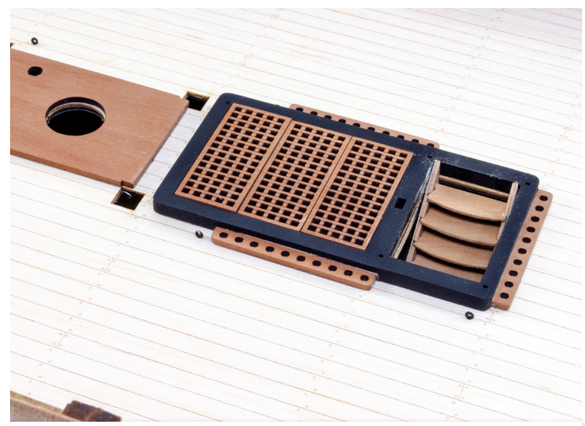


273. MID GUN DECK LADDERS: Remove all parts shown in this block.

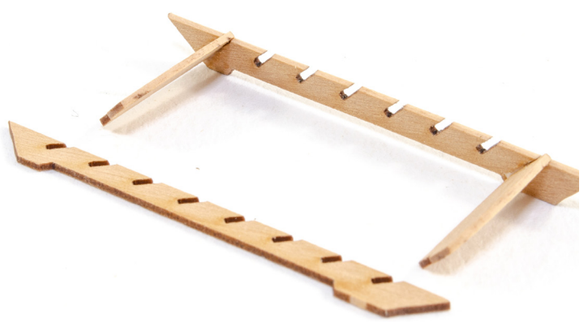


274. Take the two side pieces and the steps.

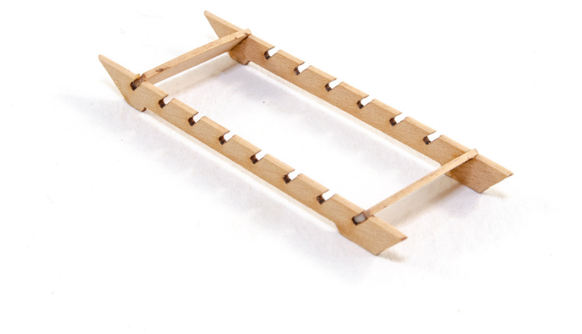
279. Your finished ladders will look like this.



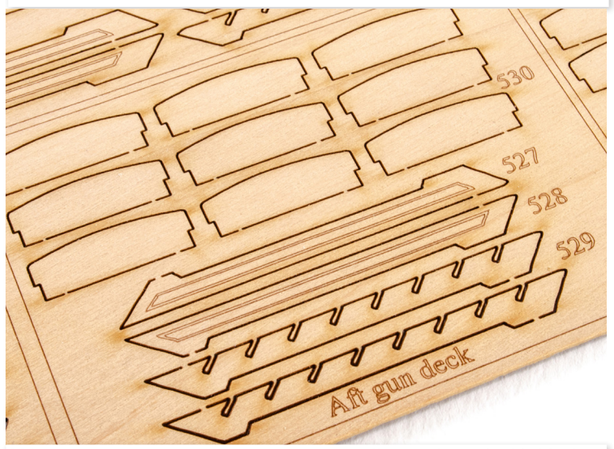
280. Glue the ladders into place as shown here. From the 1.5mm wood sheet, remove the three gratings #195a. Glue them into place as shown. Also remove grating #195 and glue into the adjacent assembly.



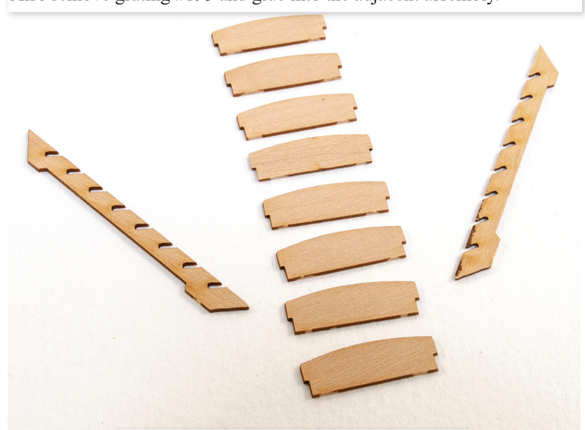
275. Glue a step into the top and bottom slots of a side piece. Leave to dry.



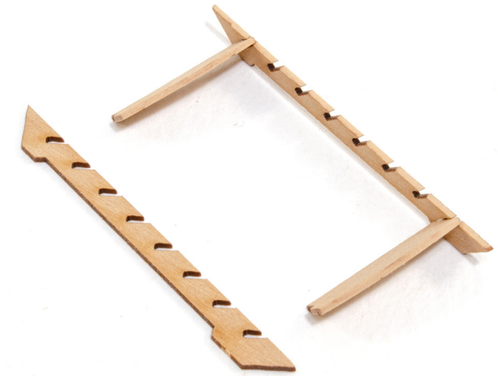
276. Now glue the other side into place and leave to dry.



281. AFT GUN DECK LADDERS: Remove all parts shown in this block.

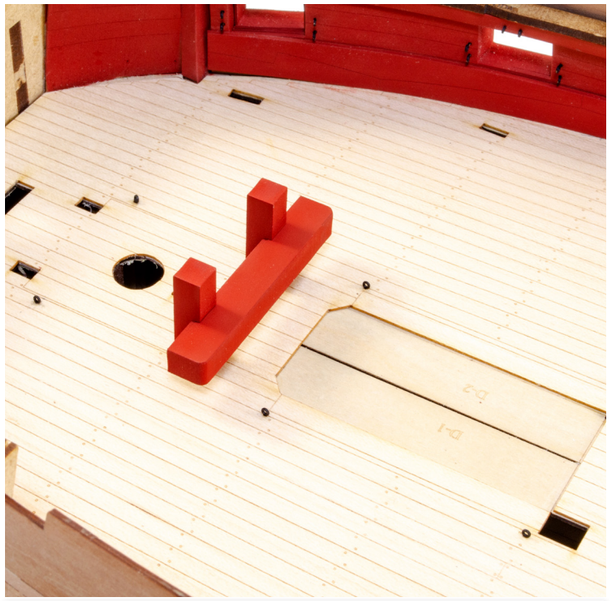


282. Take the two side pieces and the steps.

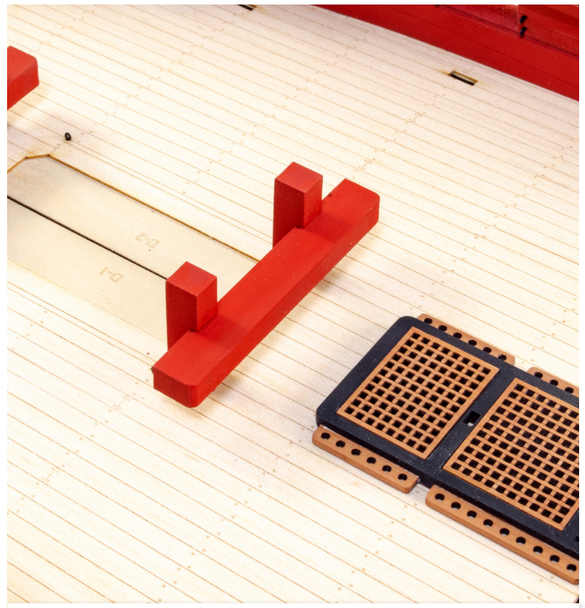


283. Glue a step into the top and bottom slots of a side piece. Leave to dry.

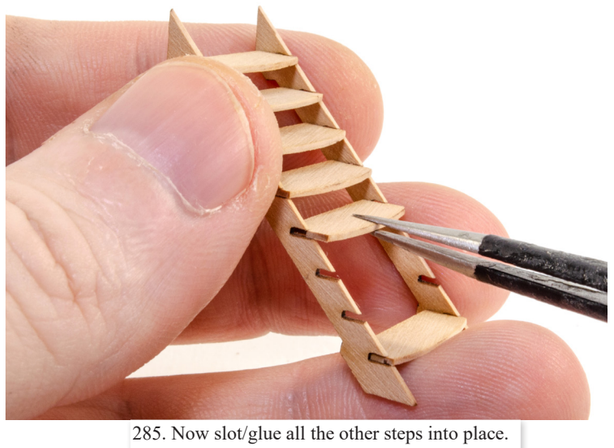
284. Now glue the other side into place and leave to dry.



289. Paint this earlier assembly in red and now glue into place, making sure it is fully seated.

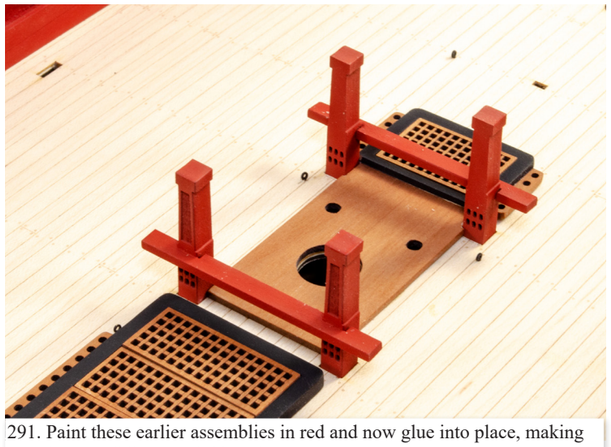


290. Paint this earlier assembly in red and now glue into place, making sure it is fully seated.

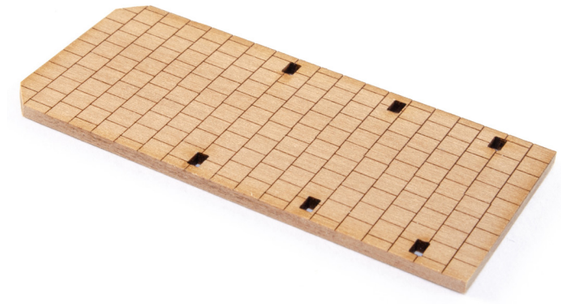


285. Now slot/glue all the other steps into place.

286. Now glue the sides onto the ladders.

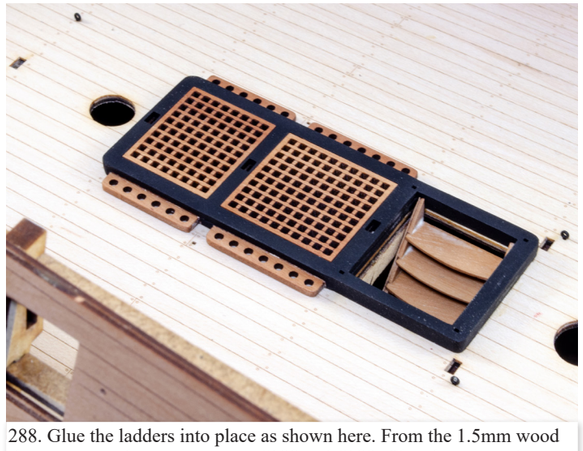


291. Paint these earlier assemblies in red and now glue into place, making sure they are fully seated. Note their orientation.

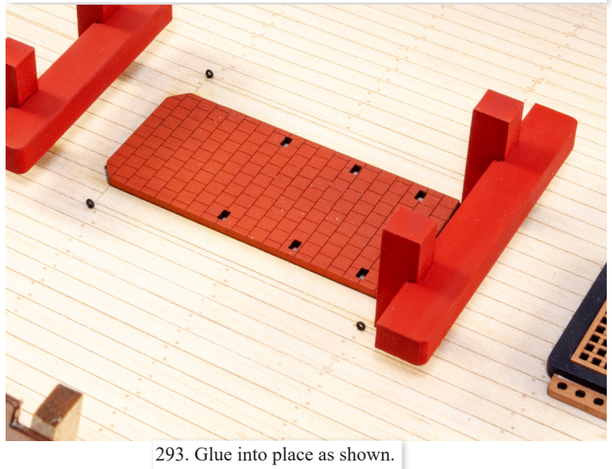


292. Take the 1.5mm stove brick base (#167) and paint in brick red and…

287. Your finished ladders will look like this.

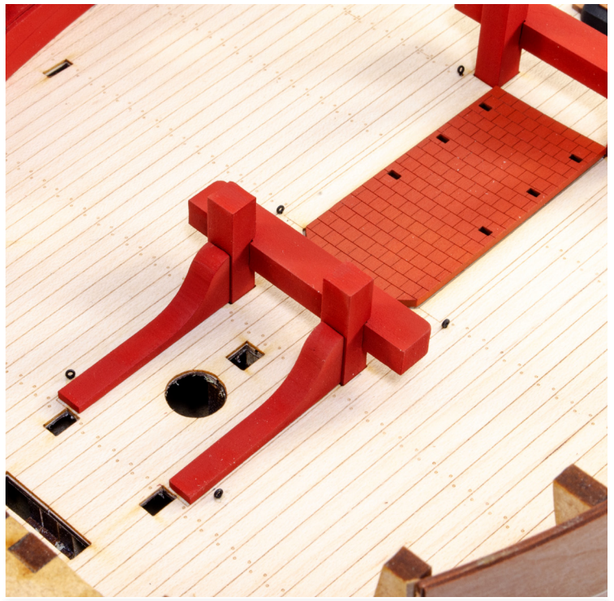


288. Glue the ladders into place as shown here. From the 1.5mm wood sheet, remove the gratings parts #198 and #199. Glue them into place as shown.

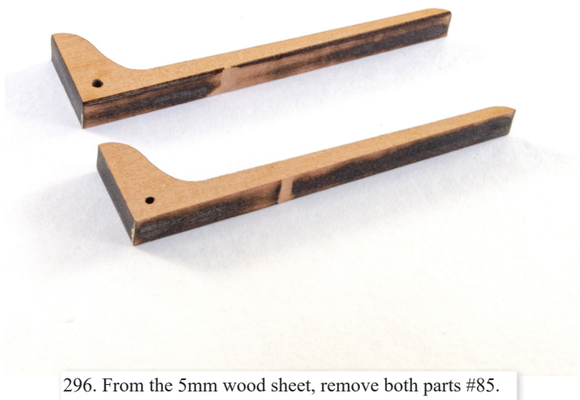


293. Glue into place as shown.

294. From the 5mm wood sheet, remove both parts #85.



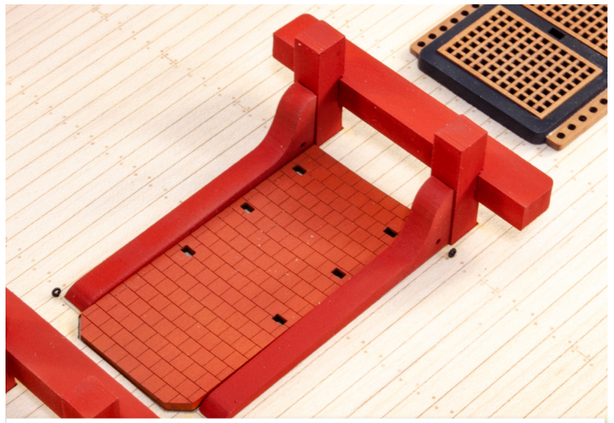
295. Profile these so they sit on the deck camber and flat against the pillars. Paint the parts red and glue into place.



296. From the 5mm wood sheet, remove both parts #85.

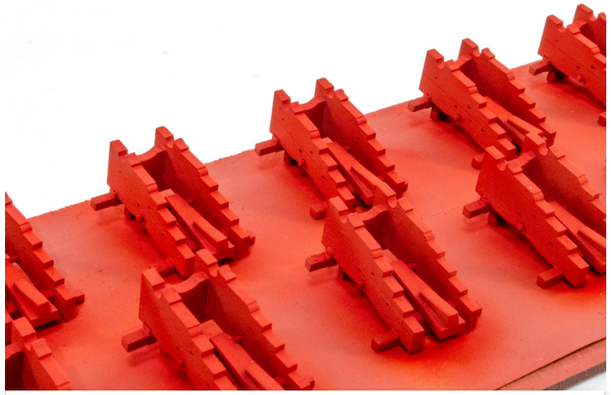
301. From the 2mm wood sheet, remove parts #143 and #144. Assemble as shown.

302. Glue the assembly to the carriage as shown.

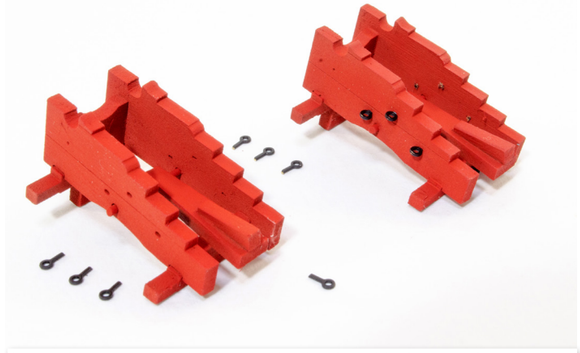


297. Profile these so they sit on the deck camber and flat against the pillars. Paint the parts red and glue into place.

298. 24-POUNDER CANNON CARRIAGE (make 26): From the 2mm wood sheet, remove parts #137, #138, #139, and #140.



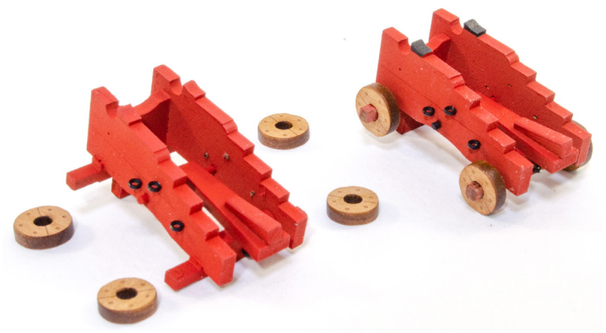
303. Paint your carriages in the same red as you've been using through kit assembly.



304. Take seven eyebolts PE-1 and paint them black. Insert into the carriage as shown.

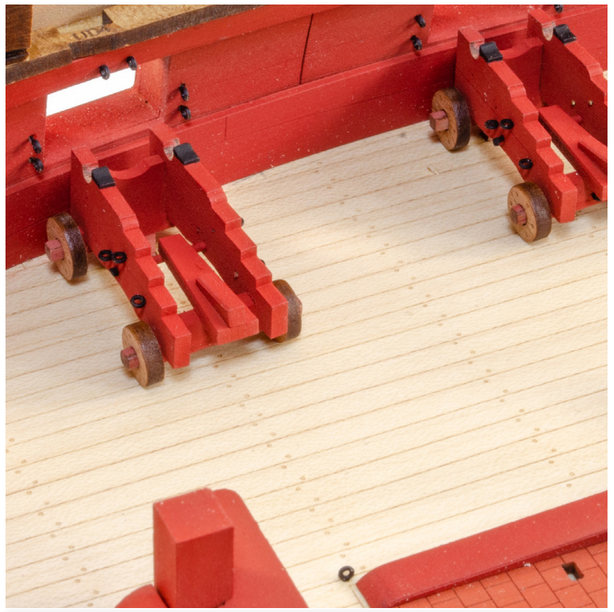
299. Assemble the parts as shown, adjusting the carriage so that it's evenly splayed.

300. Cut short lengths of 0.8mm brass wire and slot through the lowermost hole on the sides of the carriage. The wire can protrude slightly on either side.

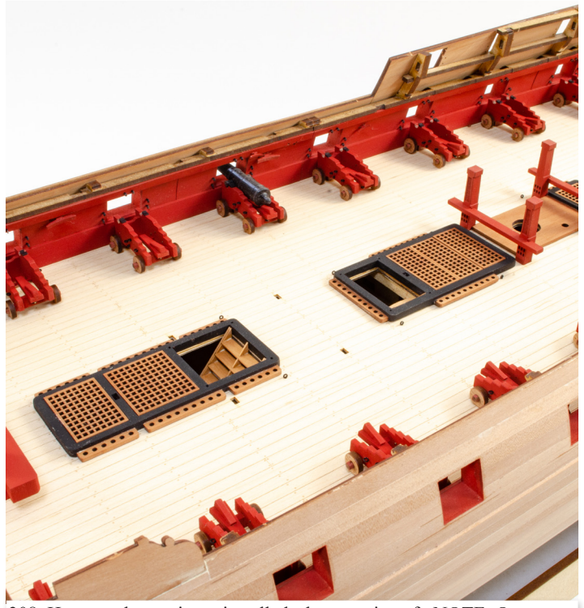


305. From the 2mm sheet, remove two large wheels #141, and two small wheels #142. The large wheels plug onto the front axels and the small, to the rear. Also paint the small section of cap square in black.

306. Your accompaniment of 24-pounder carriages will now look like this.



307. The carriages can now be plugged into the slots on the main gun deck, as shown. The wheels should sit flat on the deck.

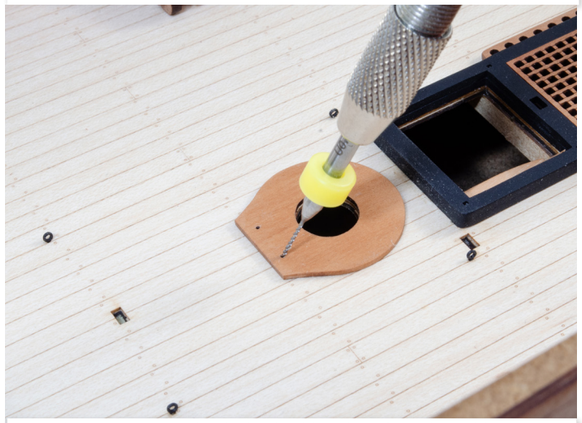


308. Here are the carriages installed, shown going aft. NOTE: One gun is shown temporarily installed, just for me to check the elevation. The gun barrels should NOT be fitted at this stage.

313. Assemble/glue as shown here, making sure the five outer parts (whelps) are pushed fully into place.

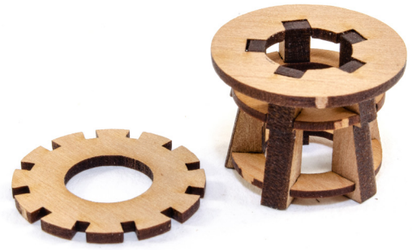
314. You can verify that everything is correct by inserting the dowel through the assembly (DO NOT GLUE). You can leave this part in place for the next stage.

309. From the 1mm wood sheet, remove part #278, and two parts #283.



310. Glue part #278 to the deck, checking the orientation with your plan, and drill through the two holes with a 0.5mm drill.

315. From the 1.5mm wood sheet, remove part #159.



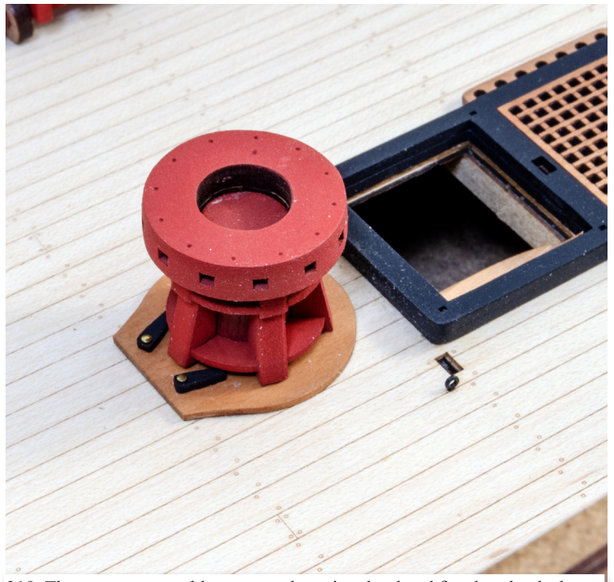
316. Glue into place as shown. Now remove one part #161 from the same wood sheet.

311. Paint both parts #283 (pawls) and use brass pin to locate them. Don't glue just yet.

312. LOWER CAPSTAN: From the 1mm wood sheet, remove two parts #280. From the 3mm wood sheet, remove five parts #108. Also cut a 50mm length of 10mm diameter dowel.

317. Glue into place on top of the previous part, as shown. Temporarily fitting the dowel can help with alignment. From the same wood sheet, remove part #160

318. Glue into place as shown.

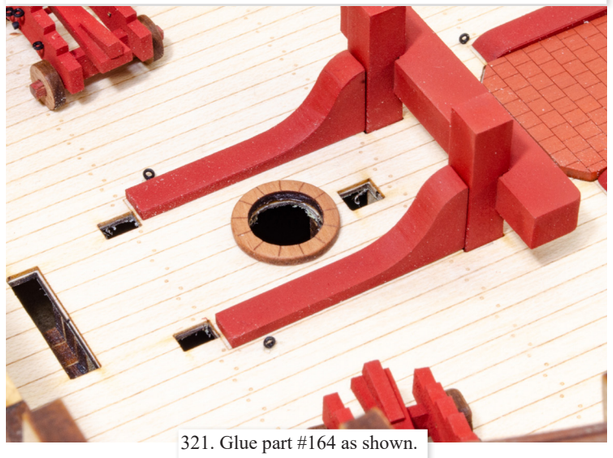


319. The capstan assembly can now be painted red and fitted to the deck as shown. Make sure the dowel is pushed fully into the hull and into the deck below. You can now finally glue the pawls into place, noting the orientation of the capstan in the photo.

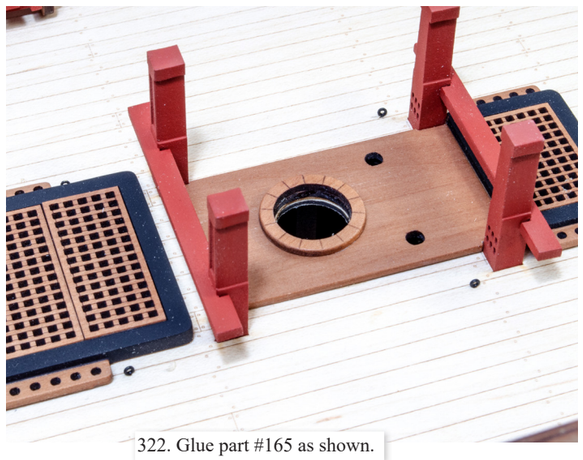
320. From the 1.5mm wood sheet, remove parts #164, #165, and #166.

325. Using brass pins to align, glue parts #53 together. Now glue one part #54 either side of this.

326. Cut/file the pins flush. Two assemblies are shown here.



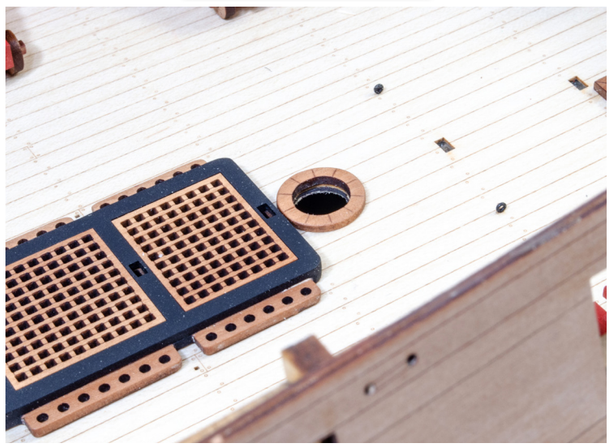
321. Glue part #164 as shown.



322. Glue part #165 as shown.

327. Take the 4mm wooden parts and glue one to another, making sure the slots align. Two assemblies are shown here.

328. Glue part #442 to the top of this, making sure the hole is central to the hols in the wooden assembly, and that the slot aligns.



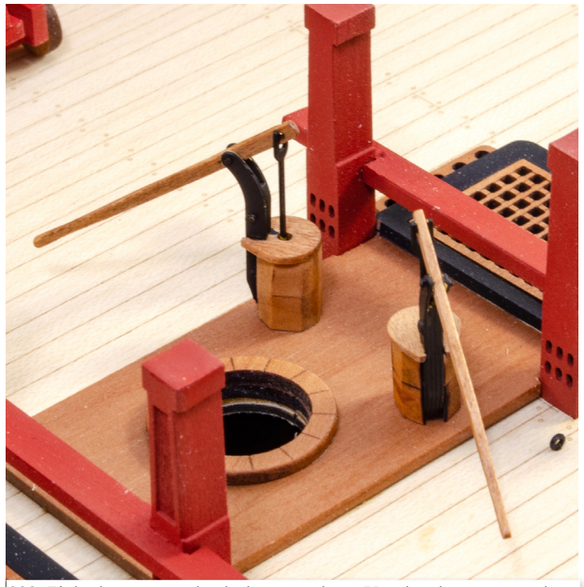
323. Glue part #166 as shown, noting that it is slightly oblong, to match the deck hole.

324. HAND PUMPS (Make two): From the 4mm wood sheet, remove two parts #99. From the 0.8mm wood sheet, remove one part #442 and one part #443. From the 0.4mm PE sheet, remove two parts #53, two parts #54 and one part #55.

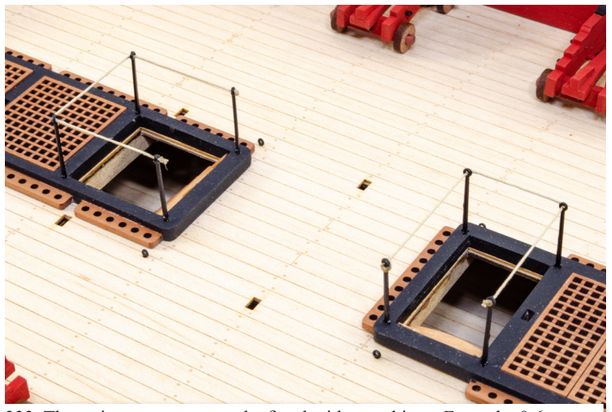
329. Glue the metal assembly to the wooden assembly as shown here. The PE will fit into the slot.

330. Fit PE part #55 to the end hole in wooden part #443. You may need to slightly splay the PE part and then close it up after insertion.

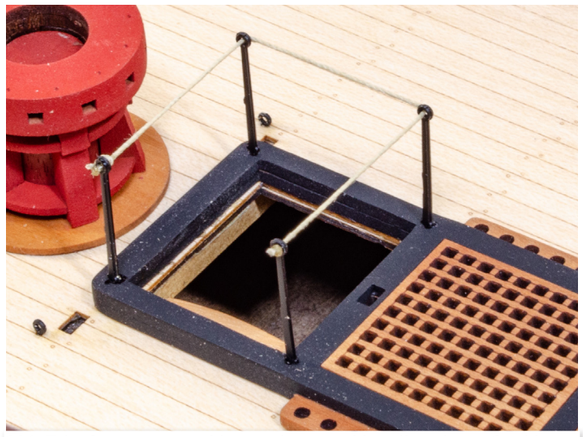
331. Fit the assemblies to the pump as shown and add a little CA to lock the pump handle into place.



332. Fit both pumps to the deck as seen here. Use the plan to gauge the orientation.

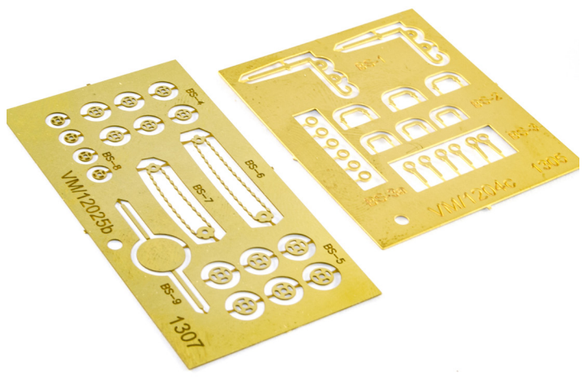


333. The stairways are now to be fitted with stanchions. From the 0.6mm PE sheet, remove eight parts #PE-59. Paint them black and glue as shown. Use some natural 0.5mm rigging cord and thread/knot as shown here and on plan.



334. Take four more stanchions and rope and install as shown for this stairway.

335. BRODIE STOVE: Your Indefatigable kit includes an 8K 3D-printed Brodie Stove. Identify these parts in your kit, ready to fit out and assemble.

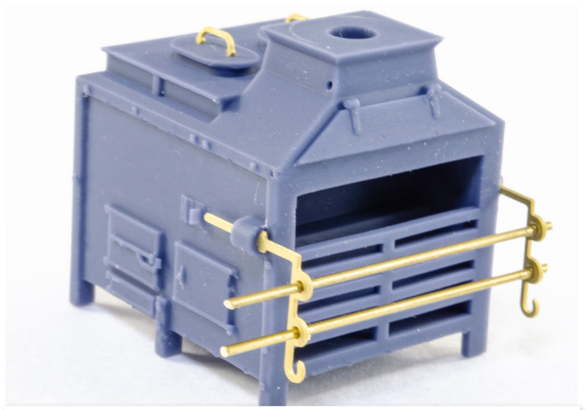


336. There are also two frets of photo-etch that you will need.

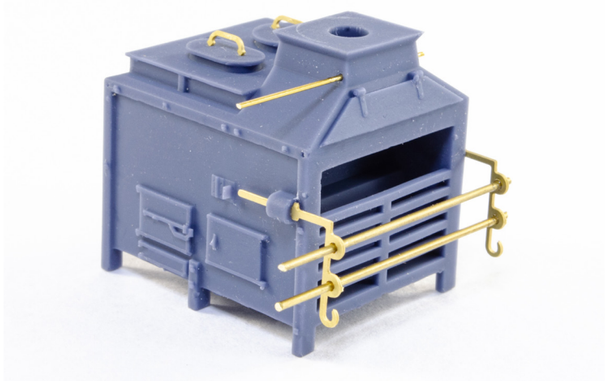
337. Glue both parts BS-1 to the main stove body.

339. Glue the larger handles BS-2 into place.

338. Glue two parts BS-8 to the read of the stove as shown. You may need to slightly drill these out.



340. Cut two lengths of 0.8mm brass rod as seen here, and glue into place. You can cut these slightly overlong on the left of the stove as they can be trimmed to length after.



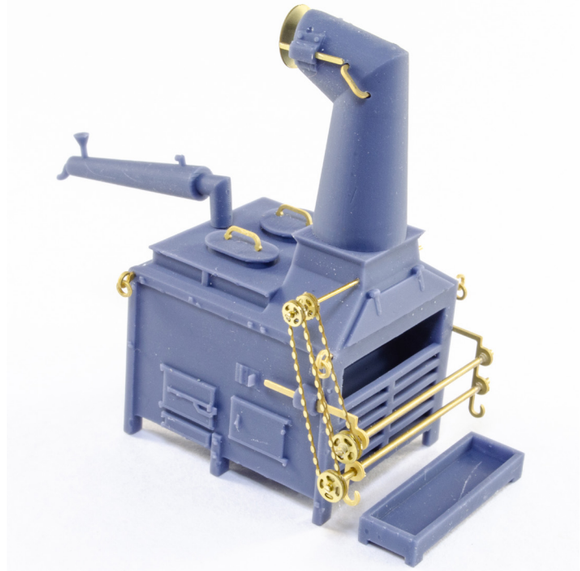
341. Glue a length of 0.4mm brass rod as shown here, so about the same length protrusion as the lower 0.8mm rod.

342. Assemble eyelets BS-3 to BS-3a and insert into each corner of the stove.

343. Slide (NO GLUE) one part BS-4 onto the thinner brass rod. Slide one part each BS-5 onto each of the thicker brass rods. Again, do not glue.

344. Slide the shorter chain BS-7 between the thin upper brass rod and the thick top brass rod. The chain link detail will face outwards. Now push this and the previous brass parts towards the stove body so they don't foul any other stove area. Add a spot of CA to fix.

349. Take the stove chimney and add two small handles BS-2, and also the plate which obscures the opening, BS-9. This will need to be bent to shape and fitted so there is a millimetre or so clearance between the two.



350. This shows how the stove will look when finished. NOTE: Do NOT glue the chimney or spout into place yet!!

345. Glue one BS-4 onto the thinner brass rod, against the chain pulley. Glue one BS-5 onto the upper brass rod, against the chain pulley.

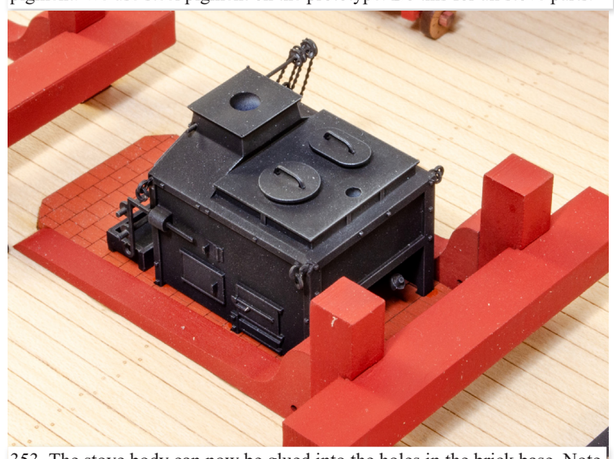
346. Now slide (no glue) another BS-4 onto the thin brass rod.

351. Firstly, prime your stove. We use Tamiya Extra Fine primer. Next, airbrush the stove in flat black, followed by a very dry brushing of a metallic pigment. We use steel pigment on the prototype. Do this for all stove parts.

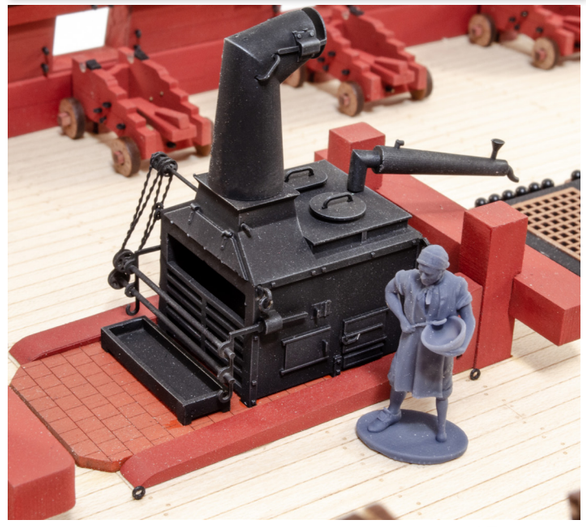
352. The finished stove will look like this. Again, do NOT glue the various assemblies for the moment.

347. Fit the longer brass chain BS-6 between the thin upper brass rod and the lower thick brass rod.

348. Slide another BS-4 onto the thin brass rod, and a BS-5 onto the thicker brass rod. Move the chain inwards but not to it touches the smaller chain. Now use spots of CA to lock everything in position. Trim the brass rods so they protrude just a little more than the chain assemblies.

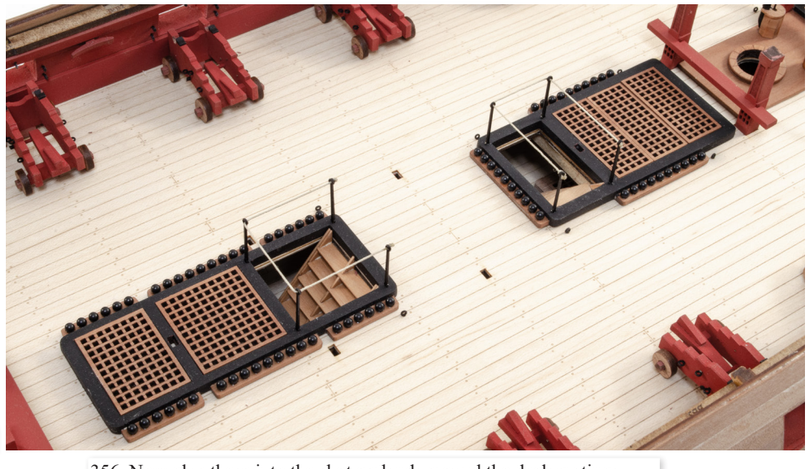


353. The stove body can now be glued into the holes in the brick base. Note orientation. NOTE: Should you want to use a ship's cook figure, these are available on our web store.

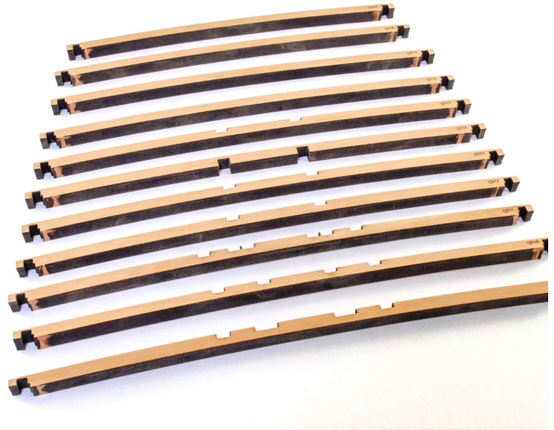


354. HMS Indefatigable will now look like this.

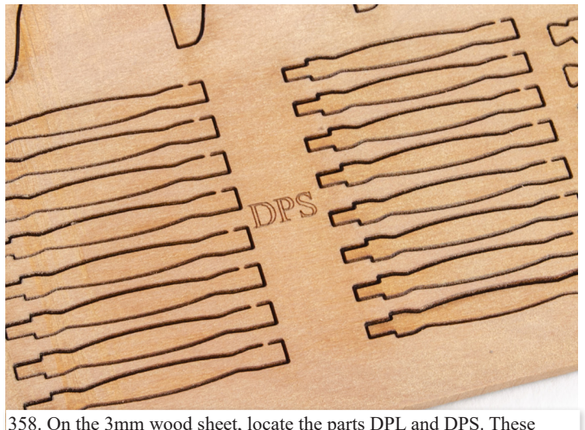
355. Locate the bag of 2.5mm cannon balls.



356. Now glue these into the shot garlands around the deck gratings. You can use PVA, CA or varnish to fix these. The choice is yours.



357. From the 6mm wood sheet, remove all the deck beams for the quarter-deck. These parts are prefixed with 'QD', engraved onto the parts.



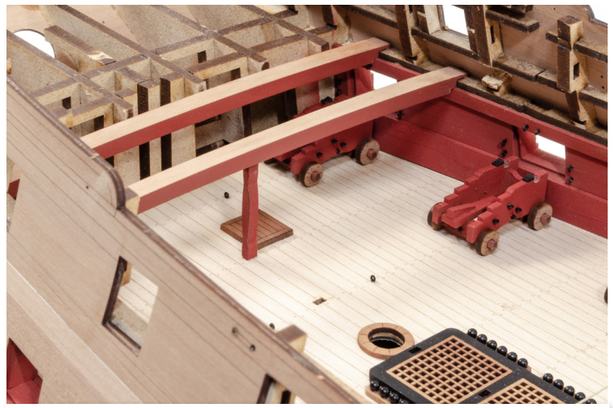
358. On the 3mm wood sheet, locate the parts DPL and DPS. These stand for 'Deck Pillar Long' and 'Deck Pillar Short. The LONG ones will support the beams directly from the deck, while the SHORT ones will support the beams from on top of a grate coaming.

359. Remove all the char from the upper beam surfaces and then mask/paint the red, leaving the upper surface (and joint slots) unpainted. Start to fit the beams starting with the rearmost one first. NOTE: it is perfectly fine to selectively cut into and remove sections of the MDF frame so the beam can be manoeuvred into position. You can see my cuts in the photographs.

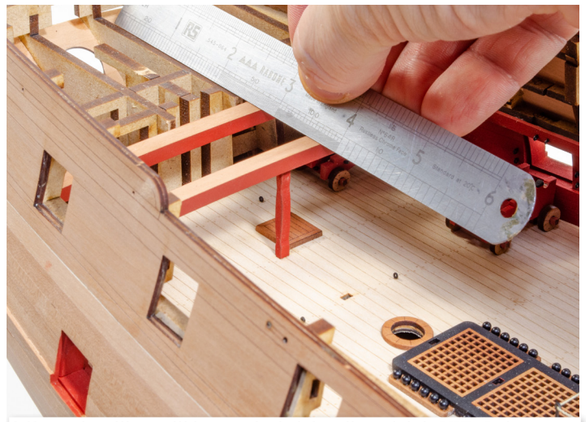
360. As you now progress, remove a little paint from the underside of the supported beams.

365. Assemble/glue as shown, making sure the surfaces are level.

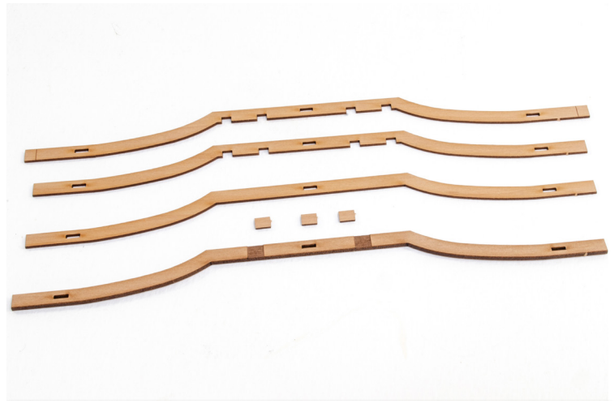
366. Clamp until thoroughly set.



361. Here you see the second deck beam installed and supported on a painted pillar. As this is directly to the deck, the pillar is a DPL. These are clearly indicated on the plans.



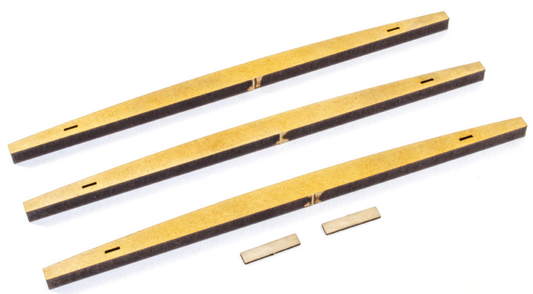
362. As the pillars will have to be height adjusted, it is VITAL that you run a straight edge over the beams and check they aren't at different heights to those around them.



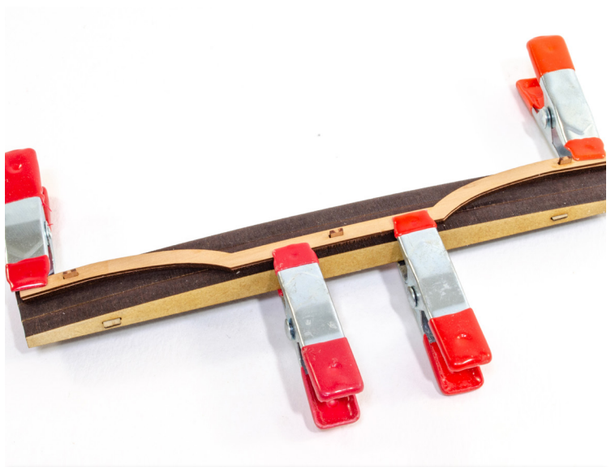
367. From the 1mm wood sheet, remove parts #306, #307, #308, and pegs #309. From the 1.5mm wood sheet, remove part #168.

368. Lay part #168 over the jig, with the engraved side downwards.

363. Here we see all the quarterdeck beams installed. Well, almost…



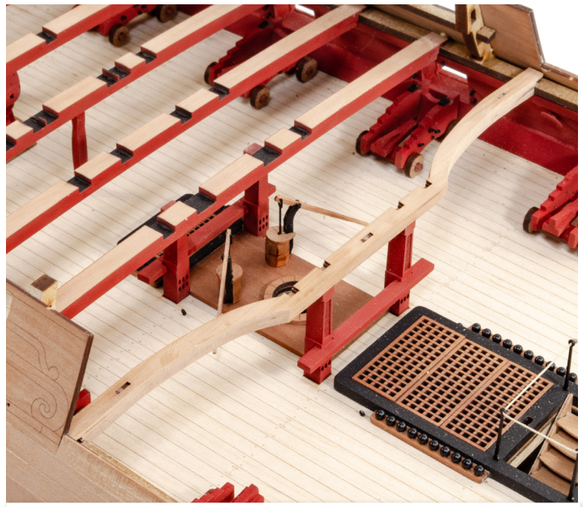
364. The front quarterdeck beam is not only shaped in one plain, it is also curved to the deck camber too. This requires a jig to make from the 6mm MDF sheet, remove all parts T-DB. Also remove the parts T-DB1 from the 0.8mm ply sheet.



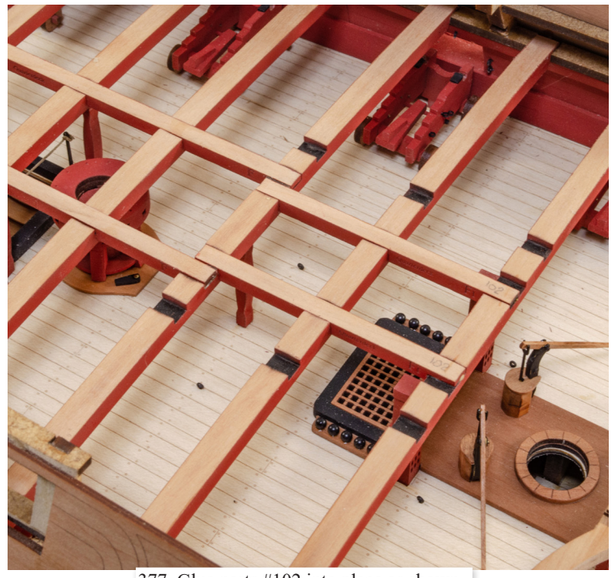
369. Add the alignment pegs to the three slots on the part, and then glue part #308 onto this. Clamp over the jig until dry.

370. Glue part #307 over the assembly. Clamp and leave until dry.

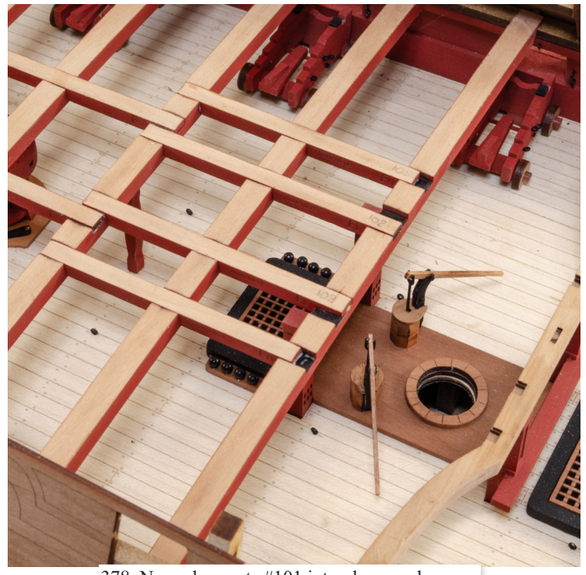
371. Lastly, glue part #306 over the assembly. Clamp and leave until dry. When the glue has set, remove the beam from the jig and clean up the outer faces so they are smooth.



372. Glue the beam into place so that the engraved areas underneath will sit on top of the bitts. Remove any red paint from the top of these first so you get good glue adhesion.



377. Glue parts #102 into place as shown.



378. Now glue parts #101 into place as shown.

373. From the 4mm wood sheet, remove both parts #103. Note the forward point on these, engraved on the sheet. These can now be painted black. NOTE: We have cut one of these parts, as shown, to assist with fitting it onto the quarterdeck frame.

374. Glue the parts into place as shown.

379. From the 3mm wood sheet, remove both parts QD/a, and also both parts QD/b.

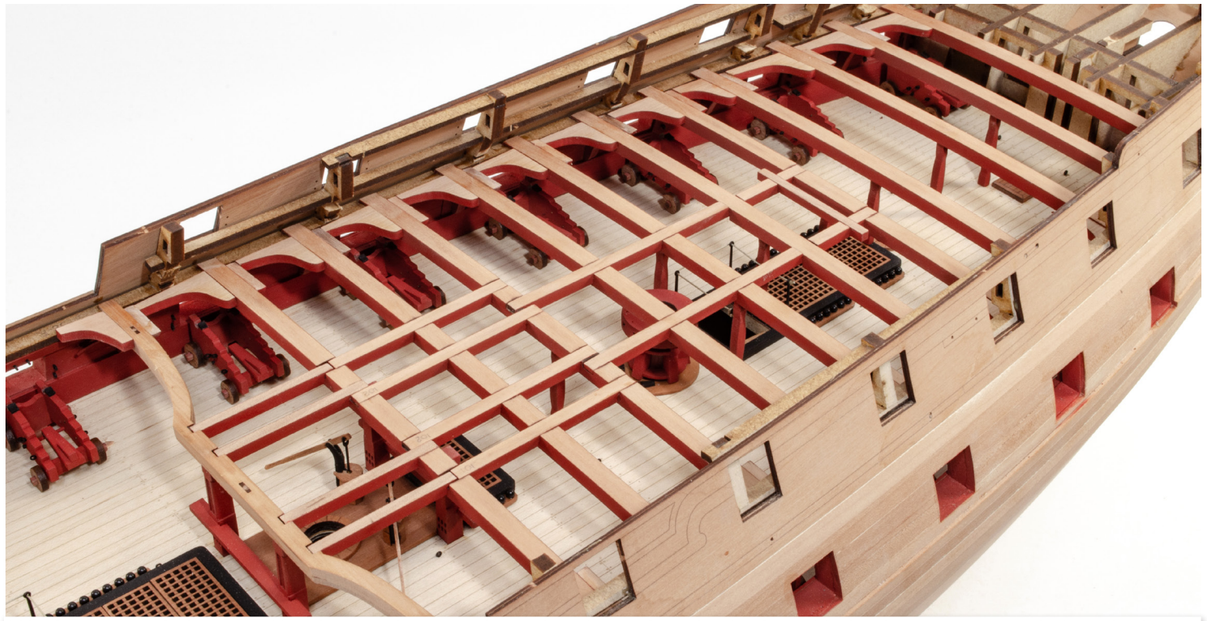
380. Glue parts QD/a into place as shown.

375. From the 4mm wood sheet, remove parts #101 and #102. There are two each of these. From the 3mm wood sheet, remove part QD15a. Please ignore the presence of the two previous parts that you just fitted!

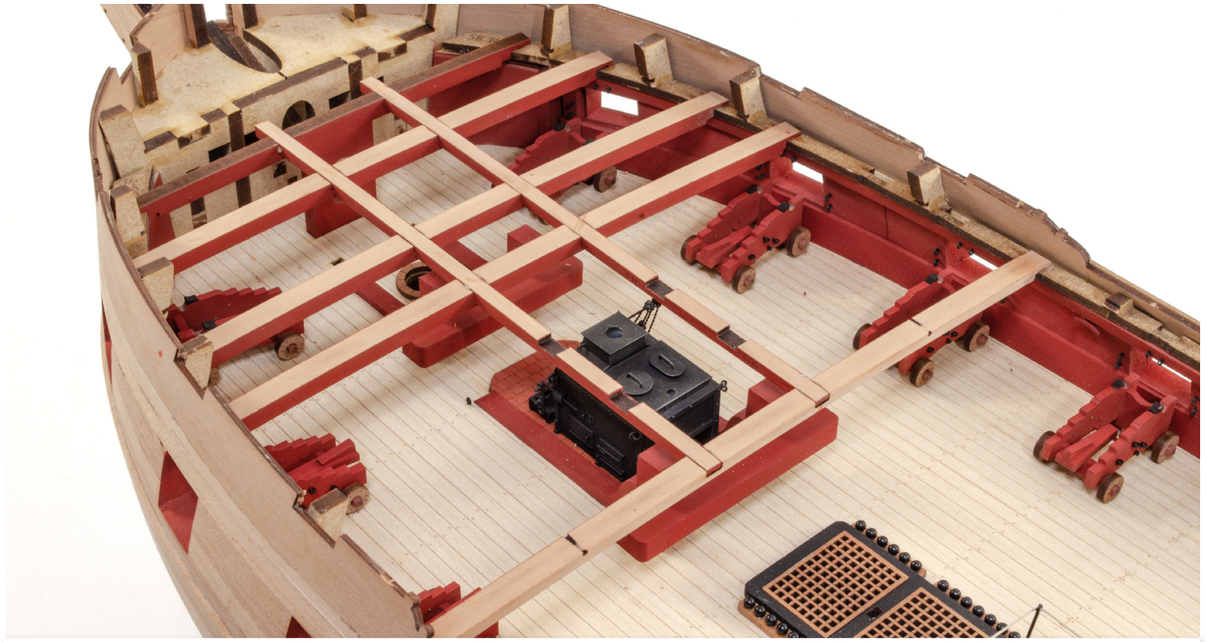
376. Glue QD15a into place as shown.

381. Glue parts QD/b into place as shown.

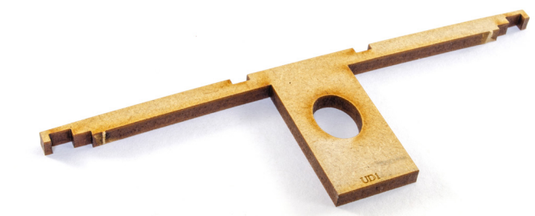
382. OPTIONAL HANGING & LODGING KNEES: There are certain things you can add to a model which generally aren't easily seen, or seen at all! One request we've had was to include the lodging and hanging knees that sit in the corners, between deck beams. Here you see the hanging knees, painted. The short ones are to fit into positions where there is a gun port directly below.



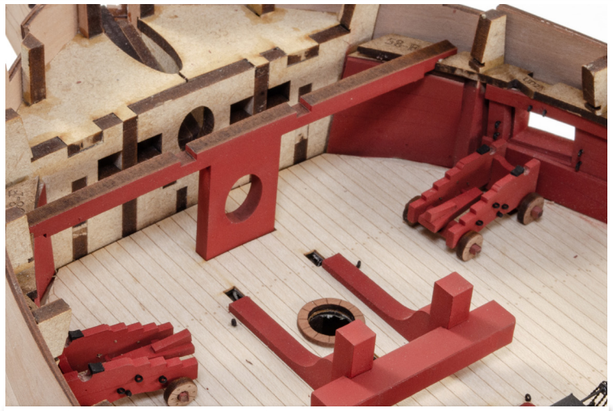
383. If you want to fit these parts (there is no requirement to do so), then please refer to the plan for positioning them. Here you see the knees in place, along with the horizontal lodging knees. If you wish to fit them, take your time in doing so.



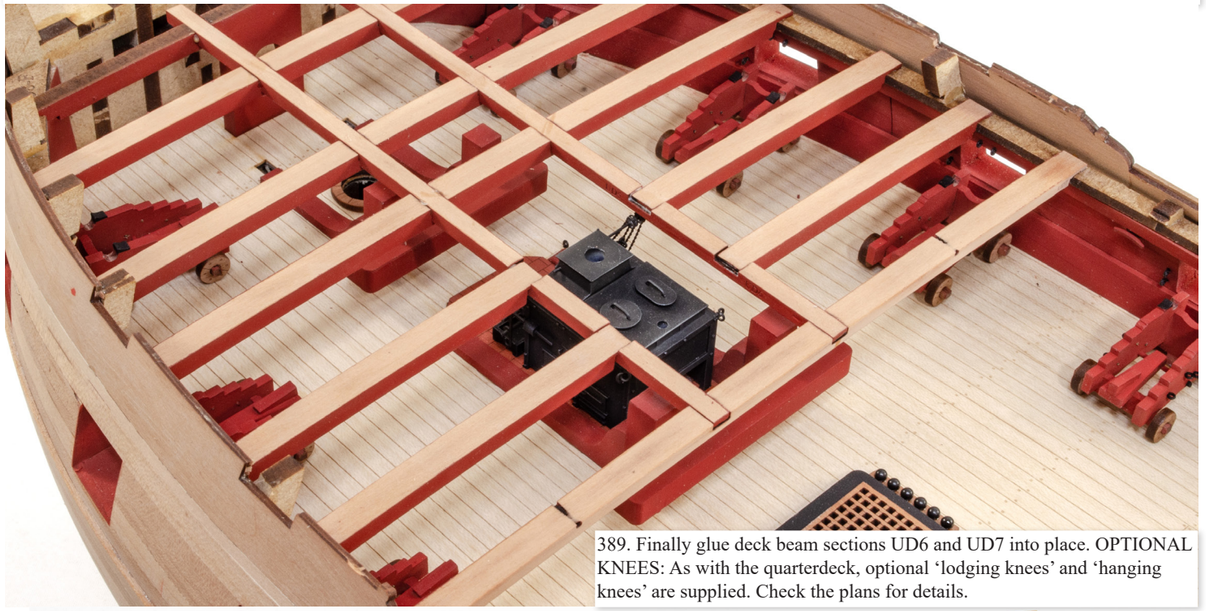
388. From the 4mm wood sheet, remove both parts #100. Paint the parts, leaving the upper surface in bare wood, and glue them into place as shown here.



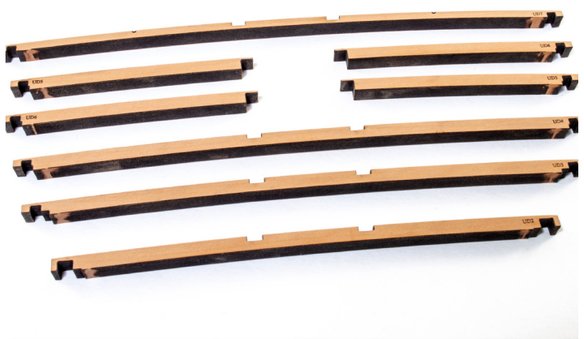
384. From the 4mm MDF sheet, remove part #UD1.



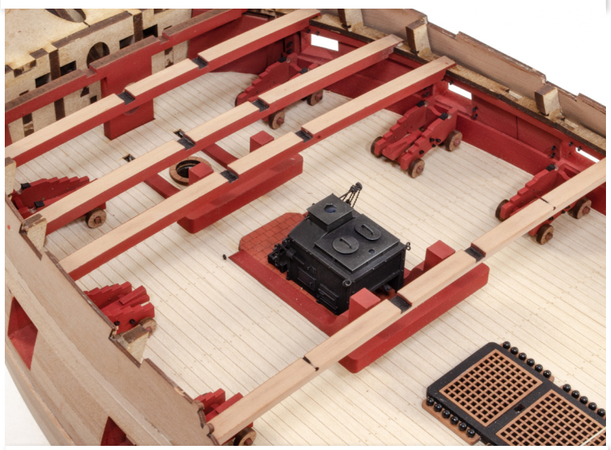
385. This can be painted red and installed as shown, making sure it is pushed fully into the deck slot and that the deck beam sits properly on the shelf at both sides.



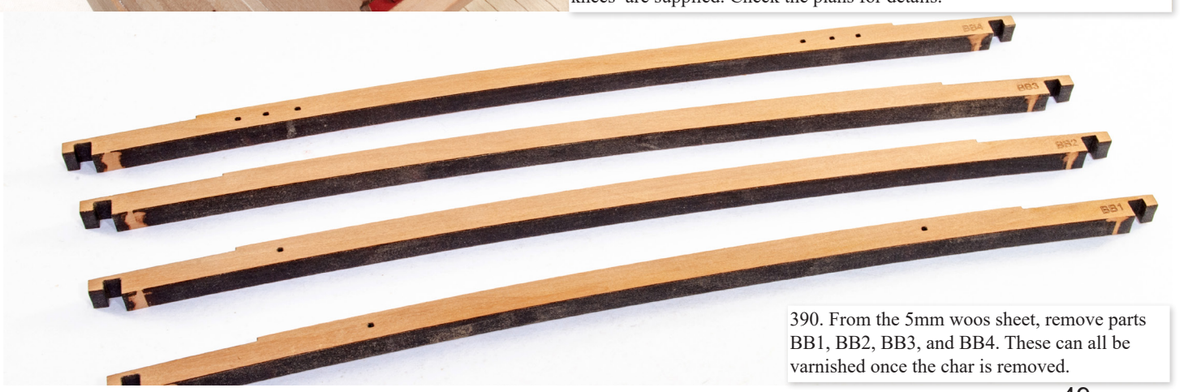
389. Finally glue deck beam sections UD6 and UD7 into place. OPTIONAL KNEES: As with the quarterdeck, optional ‘lodging knees’ and ‘hanging knees’ are supplied. Check the plans for details.



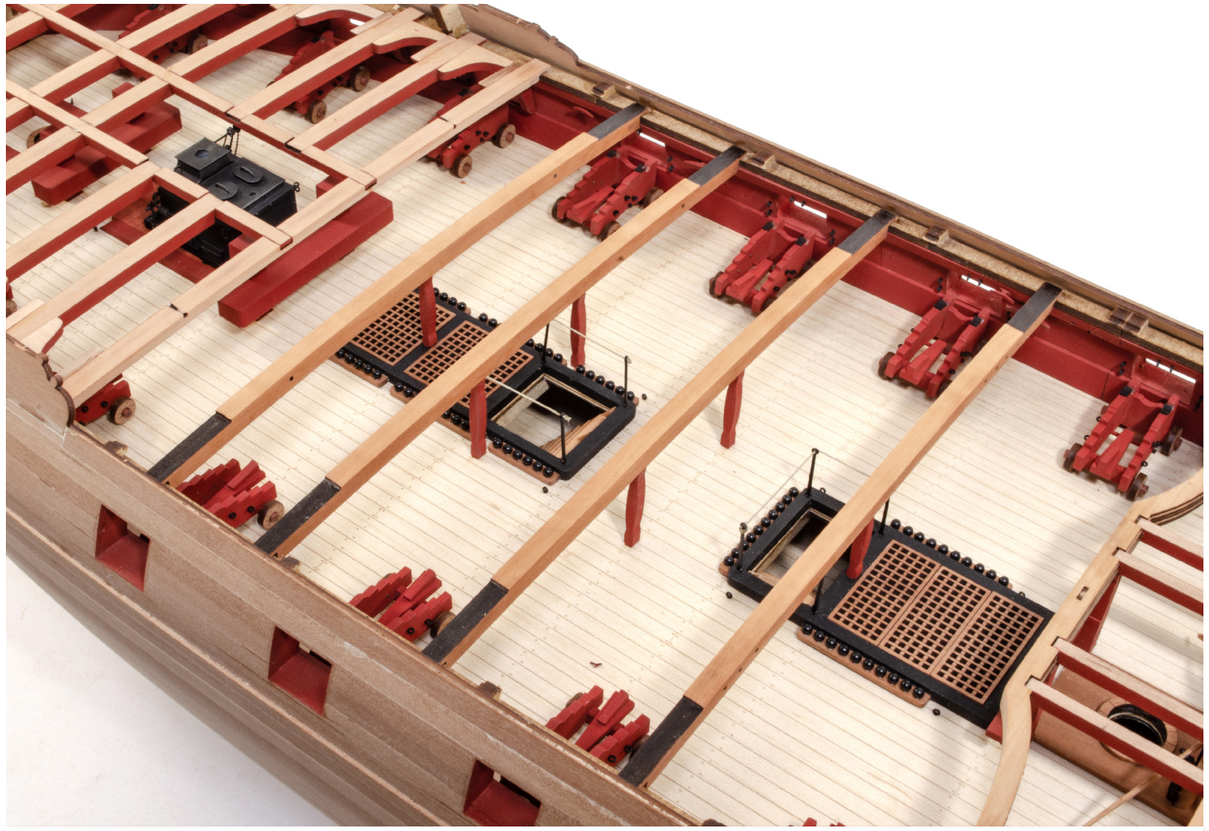
386. From the 6mm wood sheet, remove the beams for the upper deck, UD2 thru UD7. Paint the beams as you did with the quarterdeck ones.



387. Glue beams UD2, UD3, UD4, and UD7 into place. Use a straight edge to ensure that they are level to each other.



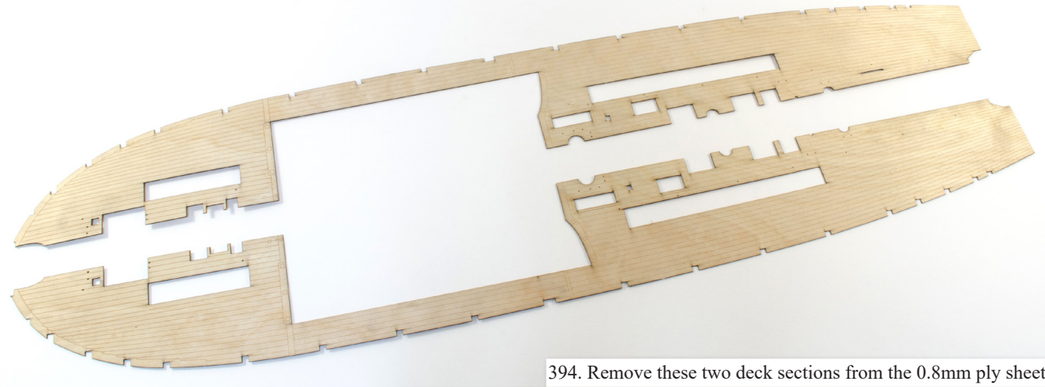
390. From the 5mm woos sheet, remove parts BB1, BB2, BB3, and BB4. These can all be varnished once the char is removed.



391. Install as shown, with BB1 being the beam which fits forwardmost. As with the quarterdeck beams, use the pillars to support these, making sure that you don't push the beams out of alignment with each other.

392. OPTIONAL KNEES: The beams you just installed also have optional knees. If you feel comfortable adding these, or consider it worthwhile, then you'll find the information you need on your plans. Remember, the longer side of these is the face that sits under the beam, while the sorter side will sit against the inner bulwark.

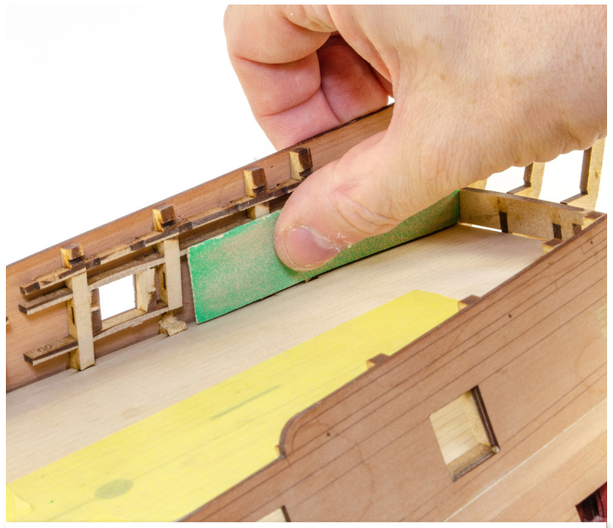
393. Indefatigable will now look like this, showing the optional knees in position.



394. Remove these two deck sections from the 0.8mm ply sheet.

395. These are actually quite easy to fit, and unlike the lower deck, these can be installed as halved. Make sure you've removed char from the deck cutaways and exposed edges. Consider removing char from the bulkhead notches too. Another small tip is to use a jewellers file to slightly bevel the innermost edge of the notch, on the upper face. Test fit the part until you are happy with how this will progress. Also consider using some 8mm and 10mm dowel, slotted into the main and mizzen mast positions, to help with centring the part. Another tip is to mark the cut-outs onto the beams when you temporarily fit the deck. This will making sure you don't get glue in exposed areas. Now add glue to the deck beams etc. and fit the first half, clamping as you go. 2-inch clamps are great for clamping the cut-outs as the tail of them can also hold the opposite side down. Weight as you see fit and leave until dry.

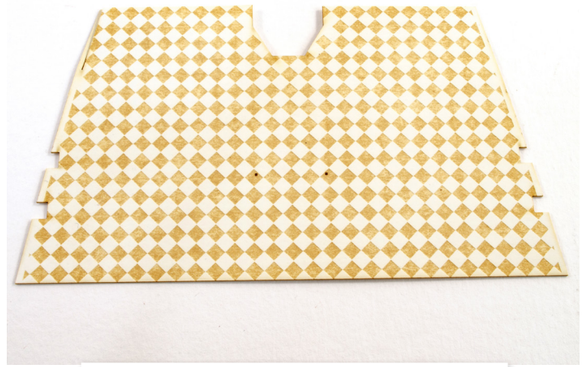
396. Now glue the opposite side of the deck into place.



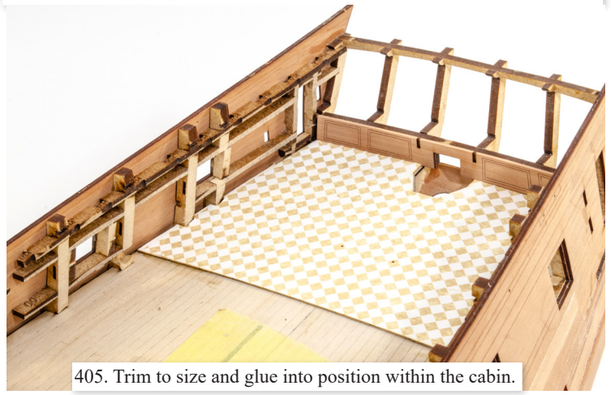
397. There's just a little more internal fairing to do. Sand the inner walls of the rear cabin so it's smooth.

398. It's also time for the temporary quarterdeck frames to be totally removed. These can be discarded.

403. Glue part #229 into place as shown, making sure it is 100% central.



404. Now take the laser-engraved cabin floor section.



405. Trim to size and glue into position within the cabin.

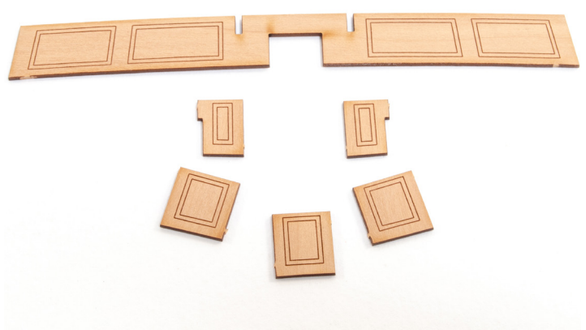
406. Using the other 1mm wooden parts, and in conjunction with the plans, build up the rudder housing box as shown. Check this against part #235 (top panel), that you used earlier in assembly.

399. Also remove the MDF ears that stick above deck height.

400. Make sure you use sandpaper to totally level any MDF which may still remain above deck height.

407. Now, let's take that part #235 again, and…

401. The same goes for any MDF which sits above deck in the quarterdeck and forecastle areas.

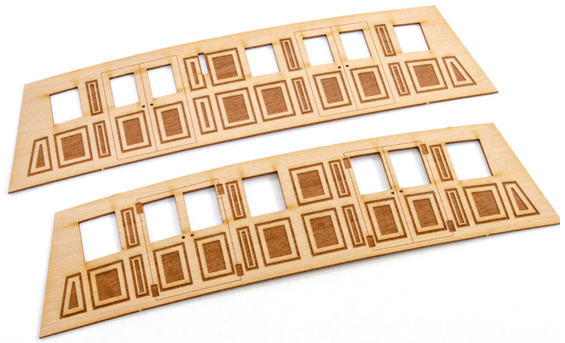


402. From the 1mm wood sheet, remove parts #229, #230, #231, #232, #233, and #234.

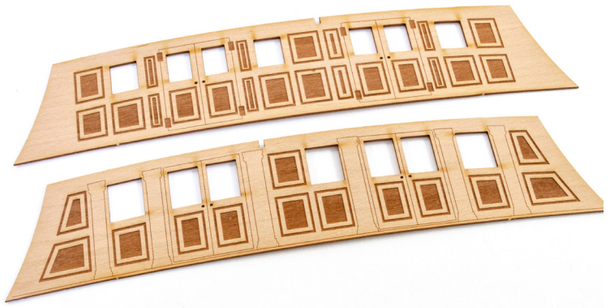
408. …finally glue it into place.

409. From the 0.6mm wood sheet, remove parts #511.

410. Glue into place on the stern timbers, as shown.



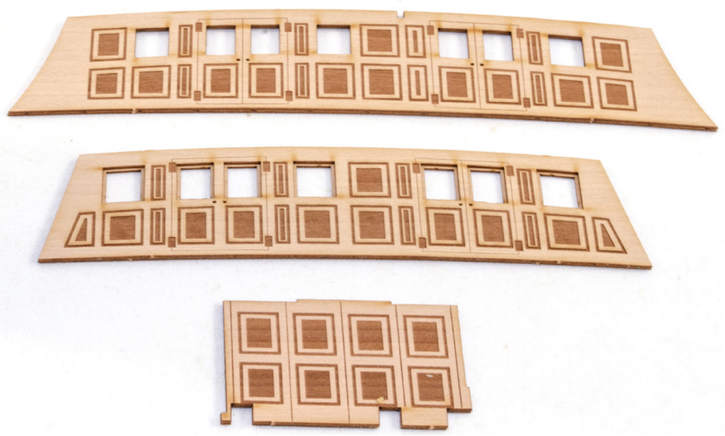
411. From the 0.6mm wood sheet, remove parts #485 and #486. These are a pair.



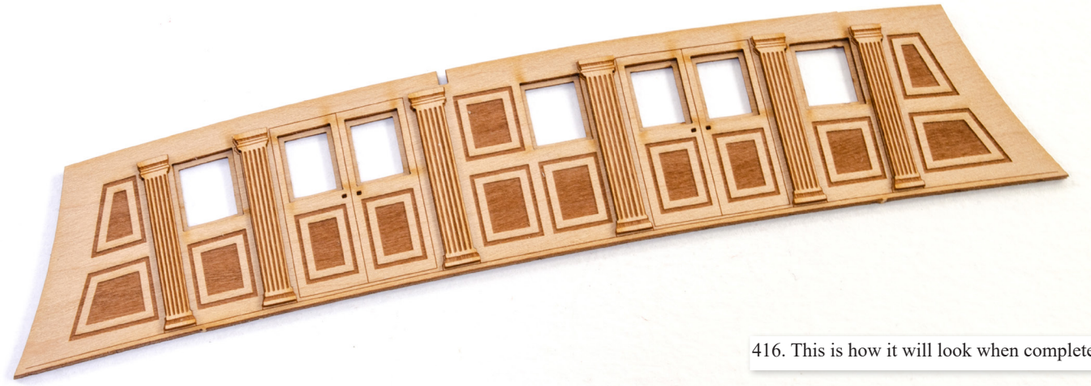
412. From the same wood sheet, remove another pair, parts #483 and #484.

413. Also from the same wood sheet, remove parts #495 and #496.

414. All of these pairs need to be glued back-to-back with each other. Whilst any will prefer regular wood glue, we find this will curl the parts, making them hard to align and keep flat. We suggest you use a good quality spray adhesive, such as 3M Spray Mount. This can be applied to the backs of the parts with its spray fan nozzle and then left for 30 seconds to become tacky. The parts can then be put together, perfectly flat.

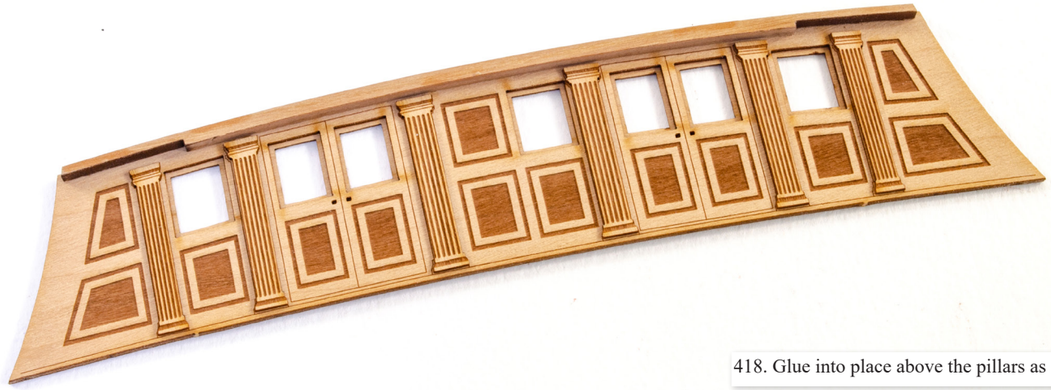


415. From the 0.6mm wood sheet, fit the columns #497 thru #492, to the engraved areas on the larger screen.

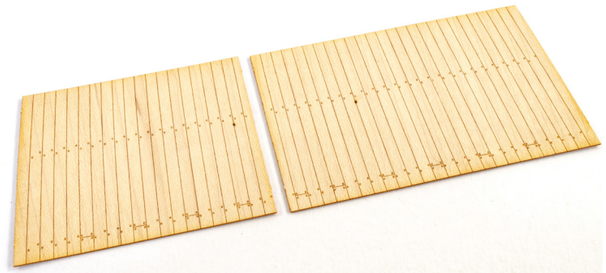


416. This is how it will look when complete.

417. From the 3mm wood sheet, remove part #PD0



418. Glue into place above the pillars as shown.



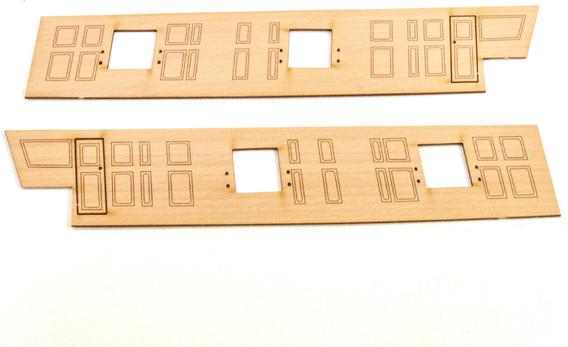
419. If you have purchased the optional laser-engraved maple deck, then you now need MD-4 and MD-5. If you are using standard kit planking, then this is the time to use that material to replicate this decking stage.

420. Temporarily sit the rear screen and the adjoining panel in place and trim them to size before gluing into position.

425. The sidewalls can now be glued into place. Use paper etc. to make sure the clamps don't mark the paint and varnish.

426. Use a 0.8mm drill to drill through the holes adjacent to the cannon ports. This is to make fitting eyebolts easier.

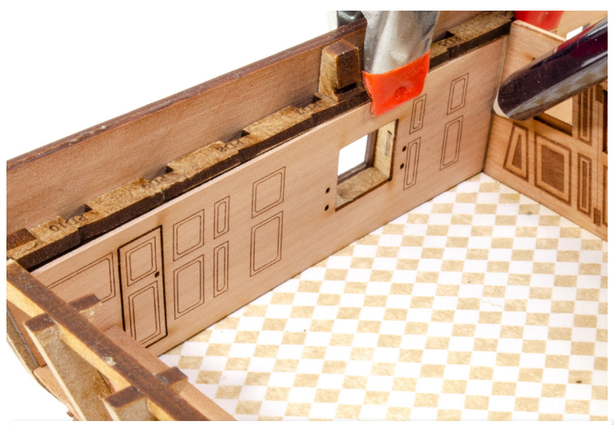
421. Whether you used the optional deck set or planked this with supplied materials, you now need to remove the rear screen and panel so this area can be worked on.



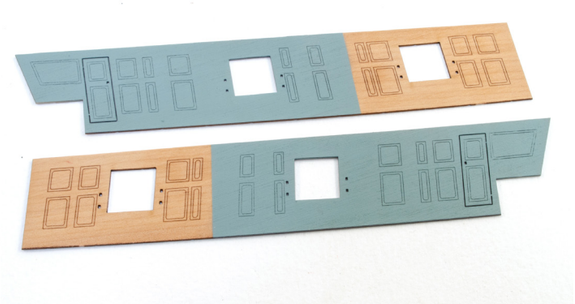
422. From the 0.6mm wood sheet, remove the parts #493 and #494.

427. Paint the rear cabin side of the read screen and leave to dry. Now dry fit the screen windows into the assemblies. These are to be found on the 0.5mm clear PETG sheet. This is also protected on one side by a peelable film. Use plans to check part number against window opening. When these are sat in place, we suggest running some clear varnish around them from underneath so the varnish will set and hold the window.

428. The window frames now need to be fitted to the windowpanes. These are found on the 0.4mm PE sheet. Please use your plans for part number against windowpane. Again, we fixed these by running clear varnish underneath the part where it sits onto the clear pane.

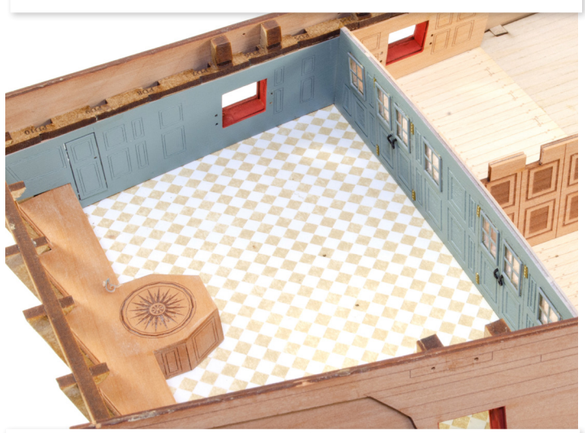


423. Temporarily clamp these in position as shown and then temporarily refit the rear screen, positioning it correctly. Draw a pencil line onto the side walls from inside the rear cabin, creating a point for masking before painting.

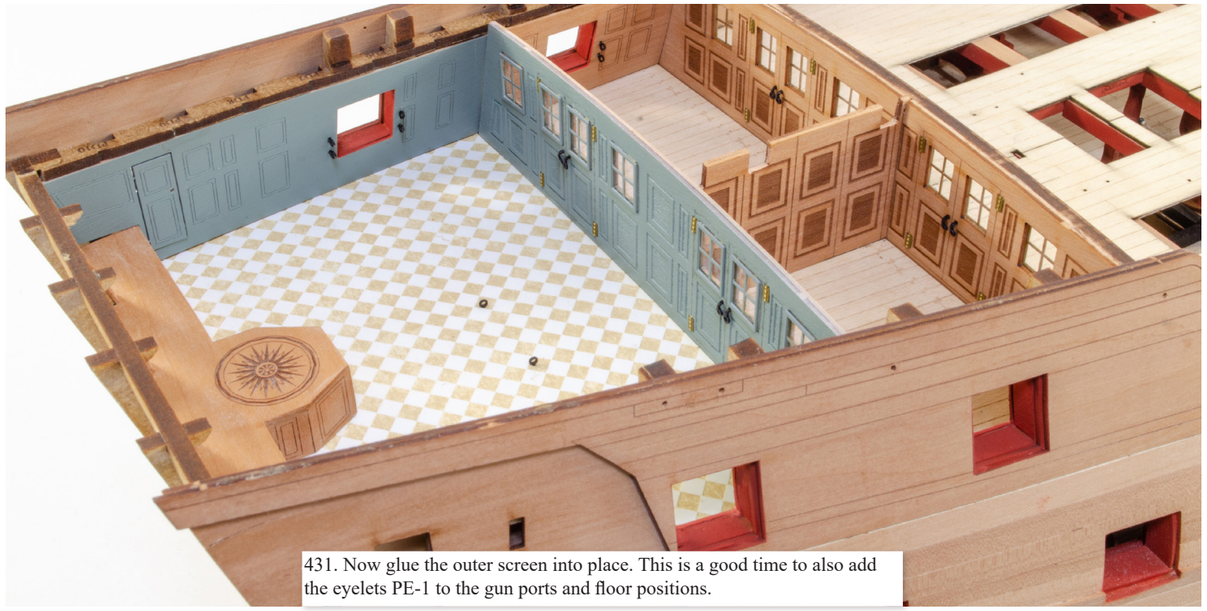


424. Mask and paint the rear cabin wall areas as shown. We recommend using the interior paint colour supplied by Vanguard Models.

429. Use PE eyelets PE-1 for the door handles and the 'Screen Bulkhead door hinges' PE-86 on the 0.25mm PE sheet.

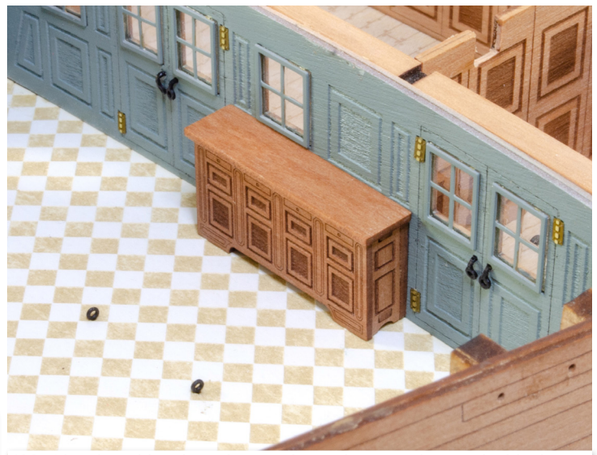


430. The rear bulkhead screen is now finally glued into place, as well as the screen partition. Also note that I had masked and painted the cabin gun ports in red before the screens.



431. Now glue the outer screen into place. This is a good time to also add the eyelets PE-1 to the gun ports and floor positions.

437. Glue CF-5 to the top of the cabinet, making sure that the rear edge is flush with CF-2.



438. Glue the cabinet into place as shown, between the two double doors in rear cabin.

432. From the 4mm wood sheet, remove poop deck beams PD1 thru PD10.

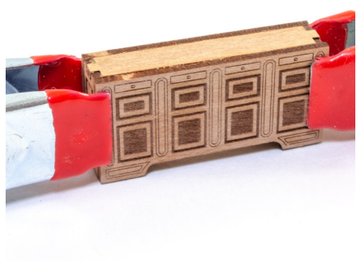
433. Take PD4 and glue into place in the numbered slot which is just in front of the rear bulkhead screen. Remove the char from the top side first. This beam, along with others in front of the rear screen, should be left in natural wood/varnish only.

439. POOP DECK 42-POUNDER CARRONADES (Make four): From the 2mm wood sheet, remove parts #153, #154, #157, and #158. You will also need a length of 0.8mm brass rod and the 3D-printed carronade and wheels. These carronades vary slightly from the deck unit as these are designed to retract into the cabin while the hull is painted. They can later be run out into position.

440. Glue both parts #157 on top of each other and then glue this to the engraved underside of part #153. You can use some wire to temporarily align the parts and then later remove it.

434. CABINET: From the 1mm wood sheet, remove parts CF-1, CF-2, CF-3, CF-4, and CF-5.

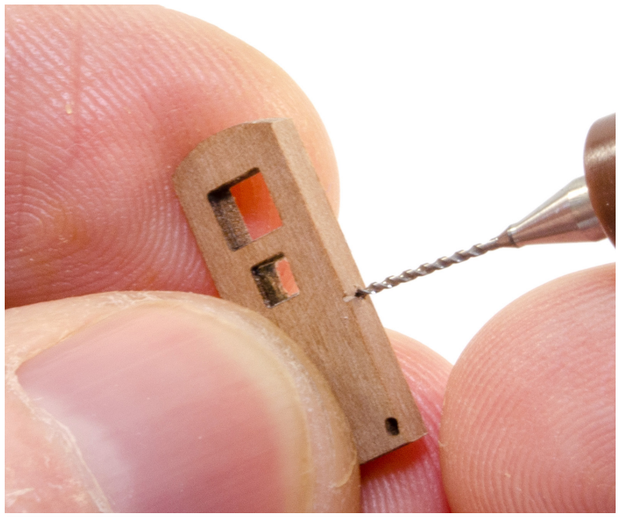
435. Use parts CF-3 and CF-4 to make the cabinet carcase.



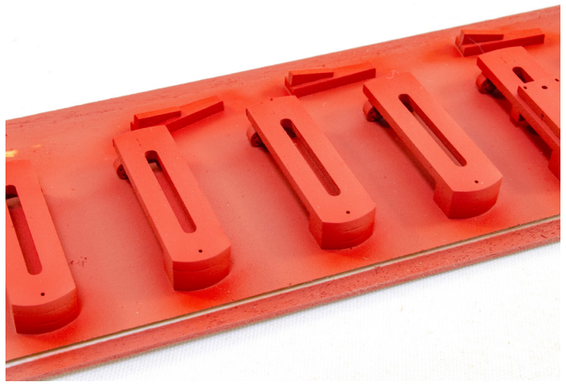
436. Glue CF-1 and CF-2 to either side of the carcase and clamp until dry.

441. Glue the wheels into place as shown. You can then file down the resin on top so it's flush.

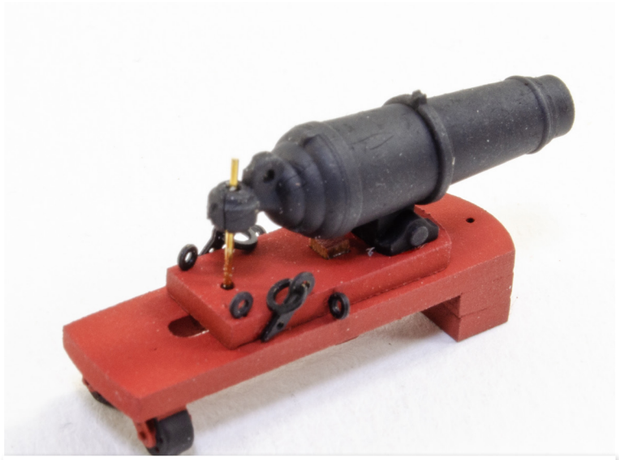
442. This is how we make this carriage slide.



443. Take part #154 and drill a 0.8mm hole in the sides, where the engraved line is your guide.

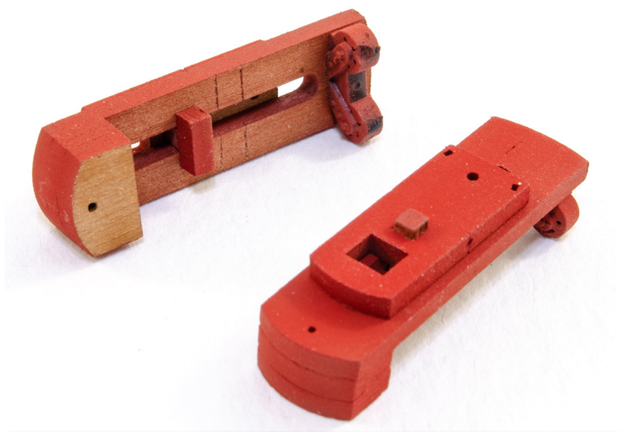


444. Paint all the parts and assemblies in red.

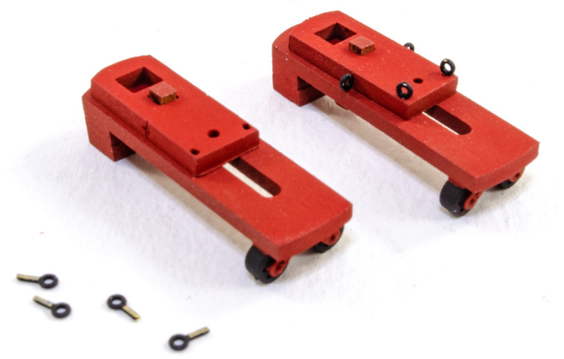


449. Slide the length of 0.8mm brass wire through the rear of the carronade, to create the elevation mechanism. This can then be painted black. You may need to slightly open up the carronade hole to pass the wire through cleanly.

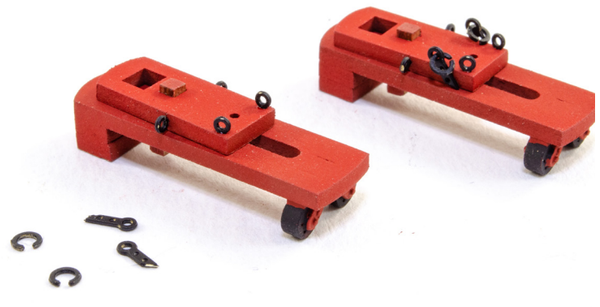
450. Your four carronades will look like this.



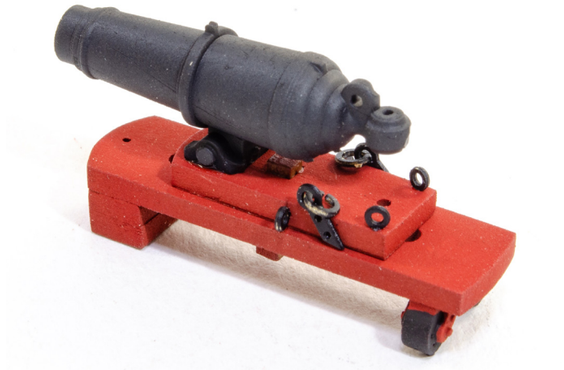
445. Sit (DON'T GLUE) part #154 on top of #153, and then insert/glue part #158 through the base and into the sliding bed #154. Leave until dry and make sure the part slides easily enough.



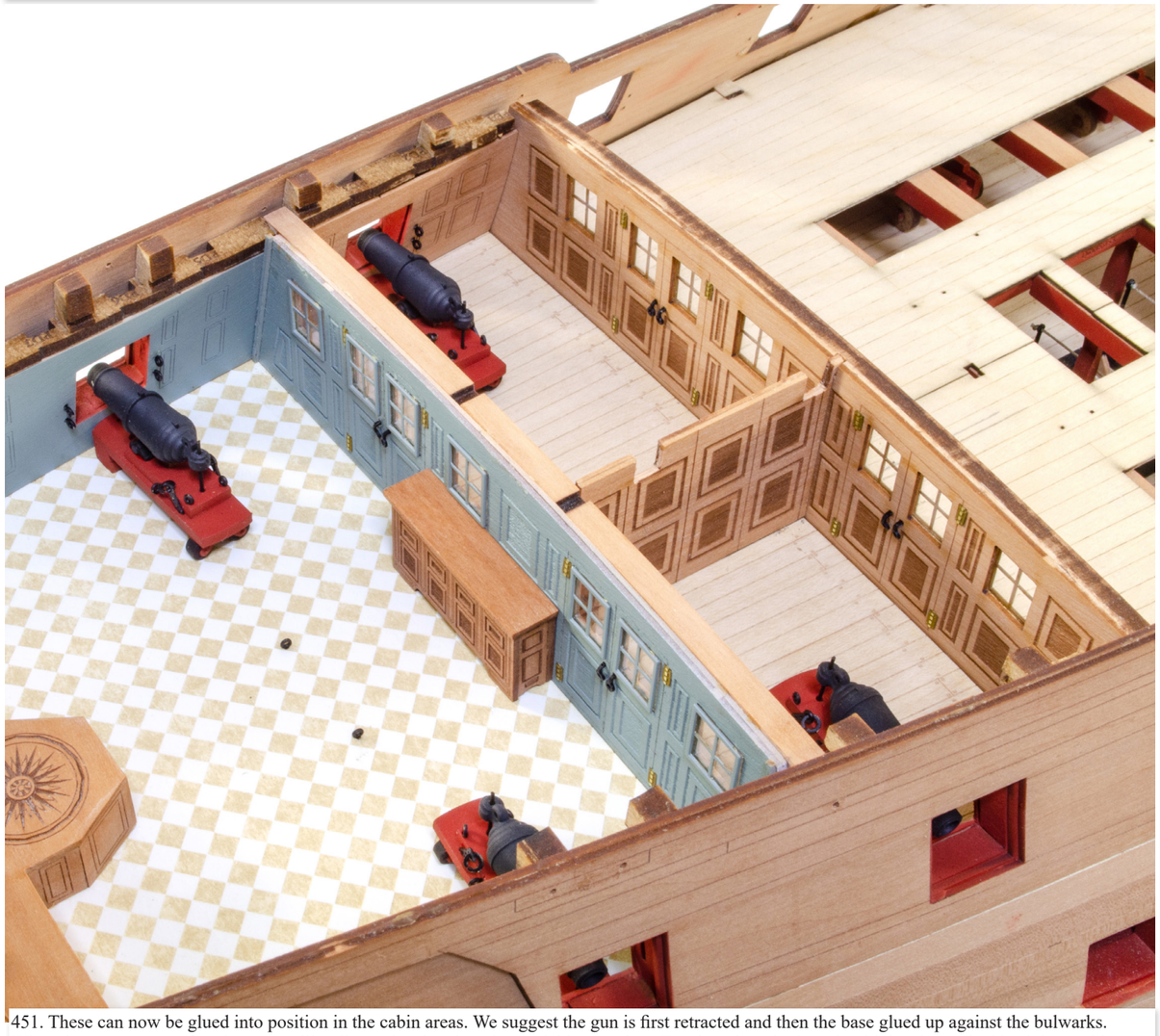
446. Add eyelets PE-1 to each carronade base.



447. Assemble these eyelets by linking through the bracket and closing the hole with tweezers. These can be glued to the carriage sides as shown.



448. Prime and paint the carronade as shown, they glue to the carriage. We recommend using the Smoke Black paint in our paint set.

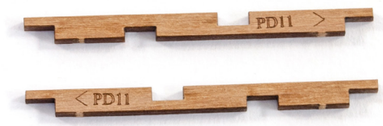


451. These can now be glued into position in the cabin areas. We suggest the gun is first retracted and then the base glued up against the bulwarks. When dry, you can see that the guns will pull out cleanly when the model is complete. For time though, they should then be pushed back into cabin area.

452. We now need to use the cabin furniture supplied with your kit.

453. Paint your furniture in a realistic wooden finish. We recommend using oil paints for this. You can also cut out the charts on the instruction sheet and fold/drape them over the table, so they look realistic.

454. Position the furniture in the cabin so that it looks natural. The position is up to you, but here's how we did it Also note that these is an extra desk and chair present. These are available in our web shop.



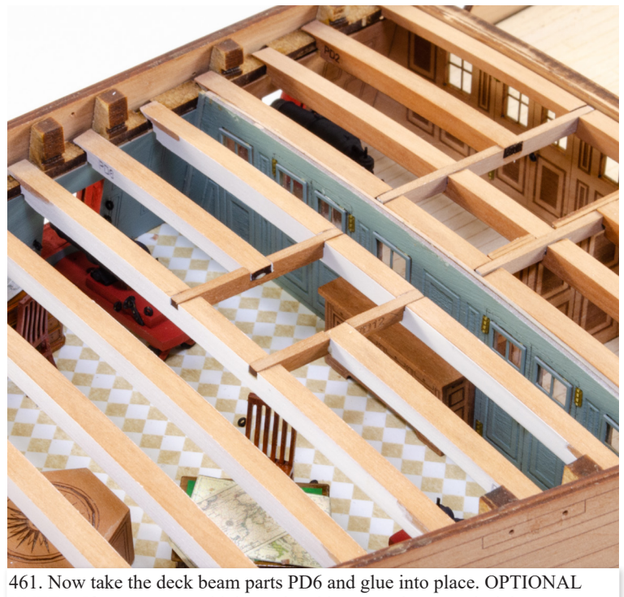
455. From the 2mm wood sheet, remove parts #128, engraved with 'PD11'.

456. Now glue deck beam PD3 into place and add parts #128, sitting across all beams to ensure they are in line. Finally, glue parts #128 into position.

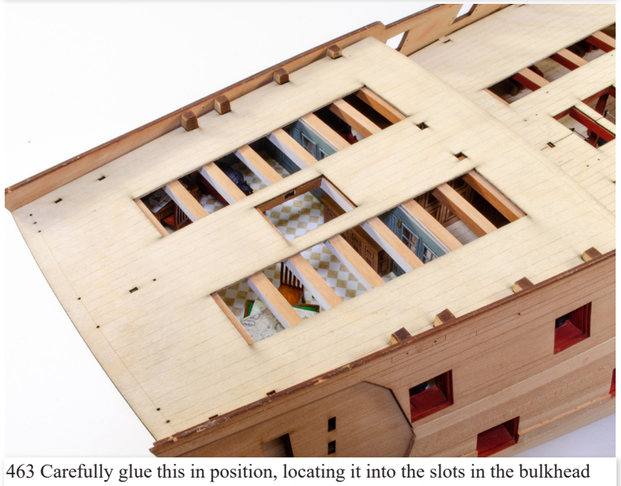
457. Now take the PD2 beams and glue into place as shown.

458. We can now move to the rear cabin and begin to install the deck beams there. Glue deck beams PD5, PD7, PD8, PD9, and PD10 into place.

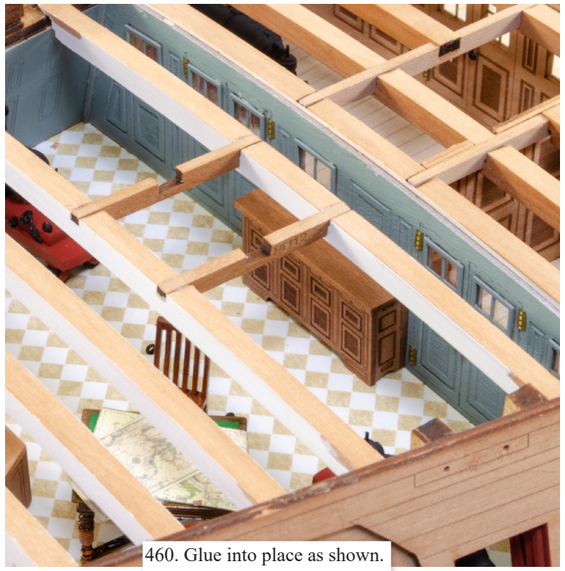
459. From the 2mm wood sheet, remove parts #127, engraved with ‘PD12’.



461. Now take the deck beam parts PD6 and glue into place. OPTIONAL KNEES: If you want to add the optional knees to the poop deck beams, as with the upper deck, we include them in the kit. Check your plans for parts placement and orientation.

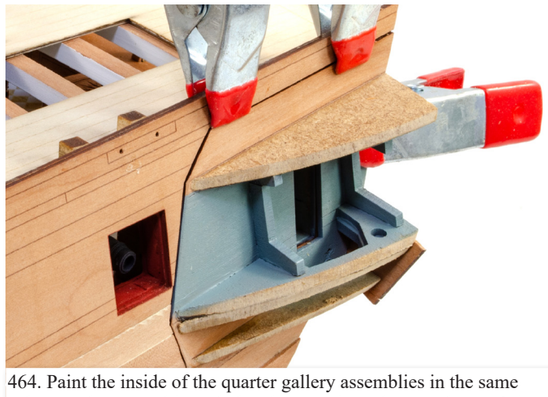


463 Carefully glue this in position, locating it into the slots in the bulkhead ears. Ensure that you don’t get any glue on the open deck beam cutaways.



460. Glue into place as shown.

462. Locate the 0.8mm ply poop deck part, #D-6.



464. Paint the inside of the quarter gallery assemblies in the same colour as the rear cabin and glue the parts into place as shown. It is recommended that you seal the MDF before applying any paint. We use a simple, inexpensive acrylic MDF sealer. Note that we have pinned the counter into place so we can ensure the quarter galleries are properly aligned.

465. The counter and inner stern parts can now finally be glued into place, checking all the time that they are central to the hull. Note that there are some laser cut holes in the inner stern piece. These are there to help you temporarily pin the part while it dries. Also, the engraved side of this part must face inwards, towards the poop deck.

466. From the 0.6mm wood sheet, remove parts #518 and parts #568. These are the inner skins that cover the quarter galleries and engraved as such.

468. Now fit the lower part #568, bevelling the top edge so it sits up the previous part. You will need to trim this part to suit your own specific build.

467. Test fit #518 and trim to suit your assembly. You are best making sure that the forward edge does not protrude beyond the front of the gallery. Glue/pin into place.

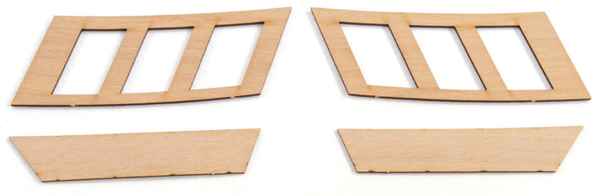
469. Here you can see the flow of the stern, from the quarter galleries to the rear. The transition in the gallery angles must match those of the stern so that the rail will eventually fit without being staggered. This is extremely important if you want your model to look correct.

470. From the 2mm MDF sheet, remove the six parts #76.

471. Sit (NO GLUE) the first one on top of the quarter gallery, pushed into the corner, against the stern. Now glue two more onto this, in the same way.

480. Fit and glue these into position on the stern, as shown. Some final trimming/adjustment may be needed.

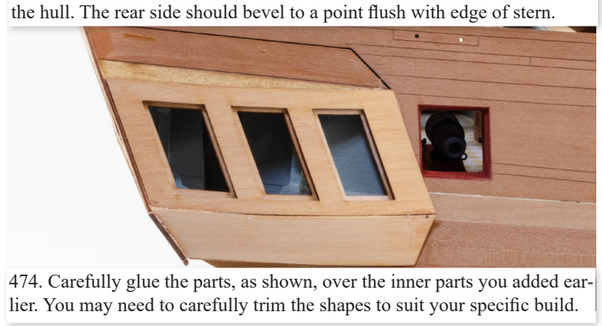
472. Remove the assembly from the model when dry and shape/sand it like this so the front of it slopes at the same angle as the engraved line on the hull. The rear side should bevel to a point flush with edge of stern.



473. From the 1mm wood sheet, remove both parts #276. From the 0.6mm wood sheet, remove both parts #569.

481. From the 1.5mm wood sheet, remove part #169.

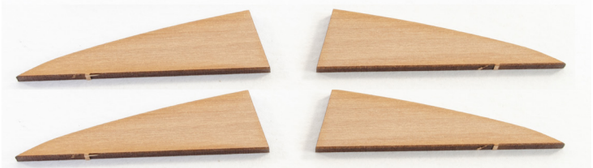
482. Carefully glue into position on the stern, using the engraved lines to guide you.



474. Carefully glue the parts, as shown, over the inner parts you added earlier. You may need to carefully trim the shapes to suit your specific build.

475. Now glue the roof assemblies into place.

483. The fitted part will look like this. You can now finish off the upper edges of the stern by carefully sanding them so they're even.



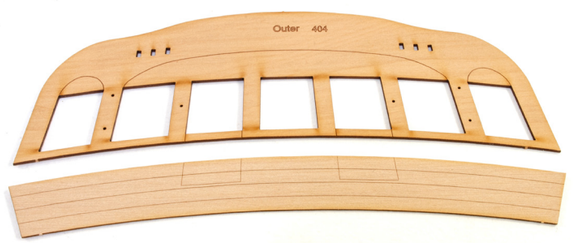
476. From the 3mm wood sheet, remove parts #49 and #50.

477. From the 1mm wood sheet, remove parts #249.

484. Use cutters to remove all the MDF bulkhead ears above deck level. Do this on all decks.

485. Use sandpaper to finally level them out.

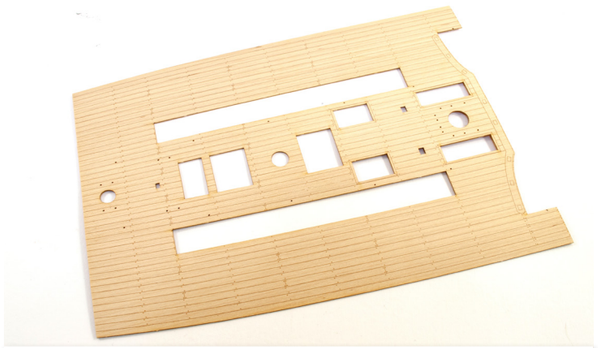
478. Glue the 3mm parts together while temporarily sitting them underneath the quarter galleries. When set, sand to profile as shown and fit to the hull. The 1mm parts need to be carefully shaped so they just overhang the roof, and the outer edge rounded off. Glue to the model.



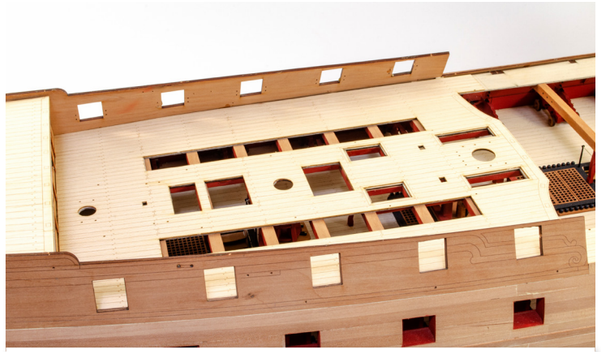
479. From the 1mm wood sheet, remove part #404. From the 0.6mm wood sheet, remove part #572.

486. OPTIONAL: If you are using the maple deck, you now need to locate this part…

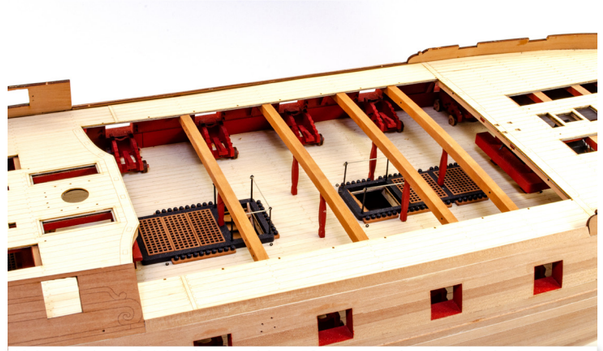
487. …and test fit/glue into position. If you are using the kit planks, you can now plank this area.



488. OPTIONAL: If you are using the maple deck, you now need to locate this part…

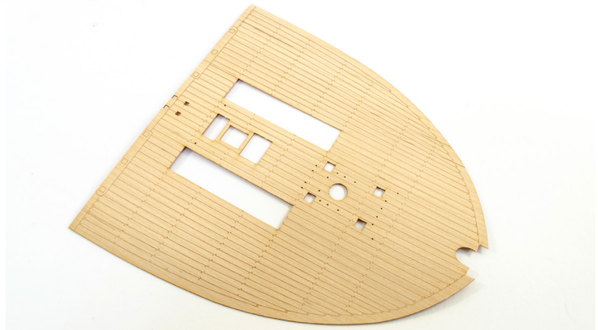


489. …and test fit/glue into position. If you are using the kit planks, you can now plank this area.



496. …and test fit/glue into position. If you are using the kit planks, you can now plank these areas.

497. From the 1mm wood sheet, remove parts #258

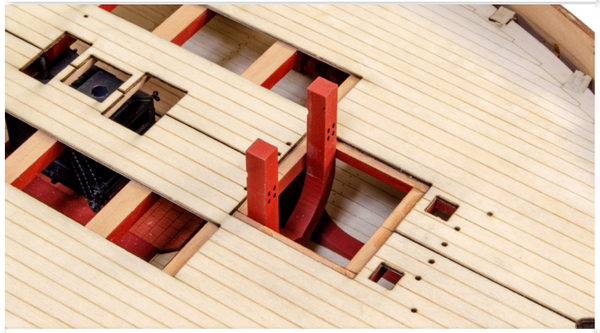


490. OPTIONAL: If you are using the maple deck, you now need to locate this part. Test fit it to the forecastle and trim as necessary. DO NOT GLUE yet.

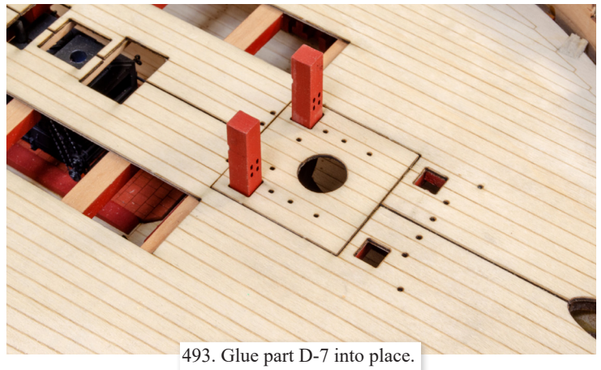
491. From the 5mm wood sheet, remove part #187 and paint this red. Also locate part D-7 from the 0.8mm ply sheet.

498. Paint these parts in red and fit to the inner bulwarks on the poop deck.

499. From the 1mm wood sheet, remove parts #219 and #220.



492. Insert part #187 as shown, making sure it fully locates into the deck below.

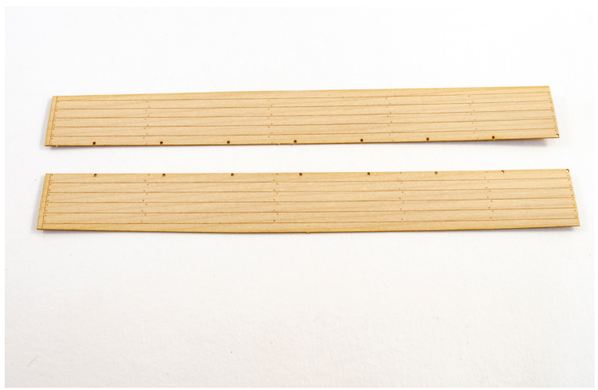


493. Glue part D-7 into place.

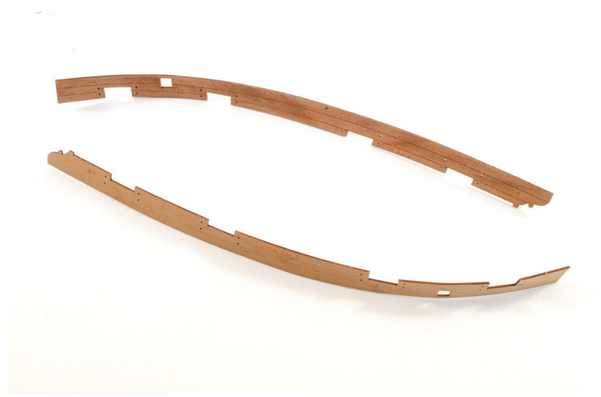
500. Paint the parts in red and fit as shown. Please remember that the position of thee is slightly offset in that the inner bulwarks will be slightly higher than the area they fit to. This is to allow for the sanding angle of the ports (sills horizontal) and for them being levelled across their tops in the next stages.

501. From the 1mm wood sheet, remove parts #256 and #257.

494. If you are using the maple deck, this can now be glued into place, otherwise, plank the deck using the kit materials.



495. OPTIONAL: If you are using the maple deck, you now need to locate these parts…



502. Soak these parts in hot water for 30 minutes and then clamp them to the inner forecastle bulwarks. Let them dry for 24hrs.

503. Paint the bulwarks in red and then glue them as shown.

504. From the 1mm wood sheet, remove part PD0F.

505. Glue into position as shown, along the front edge of the poop deck.

506. From the 0.6mm wood sheet, remove parts #513, #514, and #515.

507. Glue into place along the front of the quarterdeck. You can either sit these along the edge or just under the deck lip.

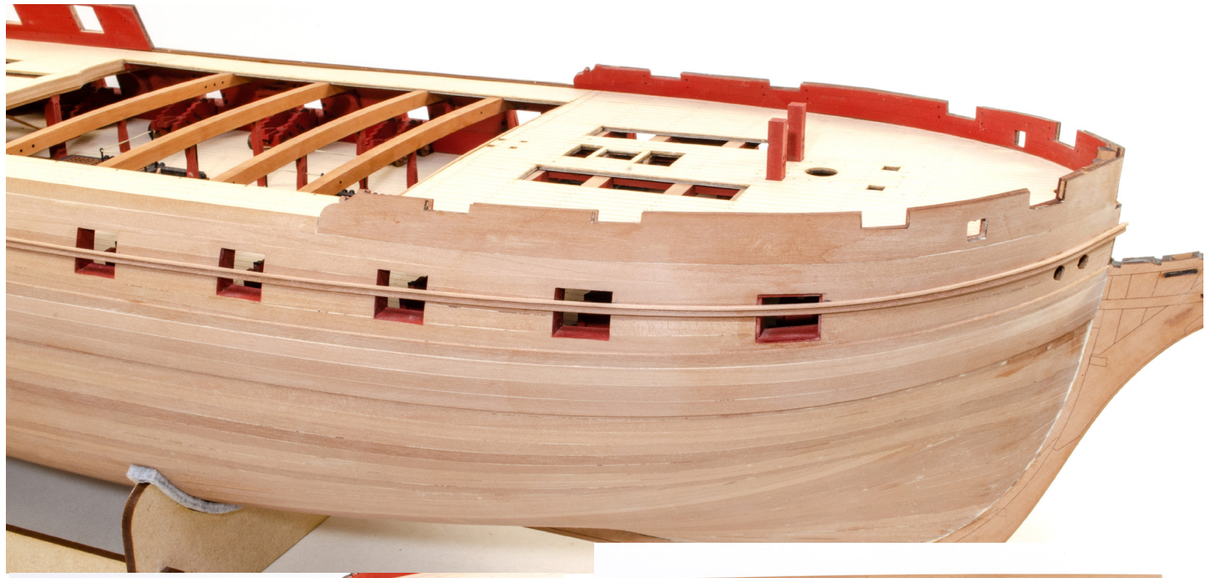
508. From the 1mm wood sheet, remove part UD7F.

509. Glue into place along the front edge of the forecastle deck.

510. Clean up the gun ports on the quarterdeck.

511. Take a 3mm2 pear strip and a 1mm2 strip and glue the latter along one edge of the 3mm strip, creating a ‘moulding’. Slightly round off the fore edges of the composite strip. Create a series of pencil marks around 14.7mm above the top edge of the length of the wale. Glue the composite strip directly underneath those marks. We suggest you use CA gel as you want to avoid pinning this strip, if possible.

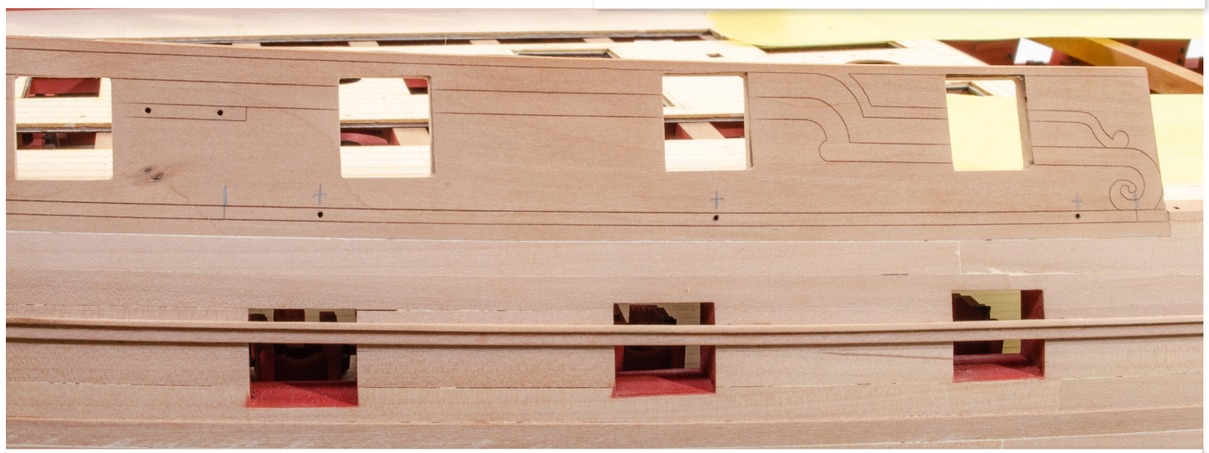
512. Here you see the composite strip at the aft of the hull and at the fore.



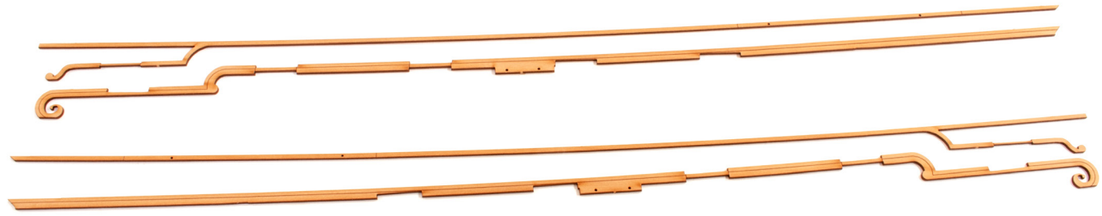
513. Mask all hull openings and sand the waist bulwarks down to flush with the waist gangways.

514. From the 1mm wood sheet, remove parts #259.

515. Glue them in position at the waist as shown, checking plans for orien ation and details.



516. Notice the engraved marks on the upper, outer bulwark. These denote the position for the front and end of the main mast channel, and the holes for pinning it in place. Transpose those marks, using a pencil, so they are marked just above their positions.



517. From the 1mm wood sheet, remove parts #221, #222, #223, and #224.

518. These must now be glued the upper areas of the outer bulwarks on both sides. The positions for these are easily seen as they are engraved for you.

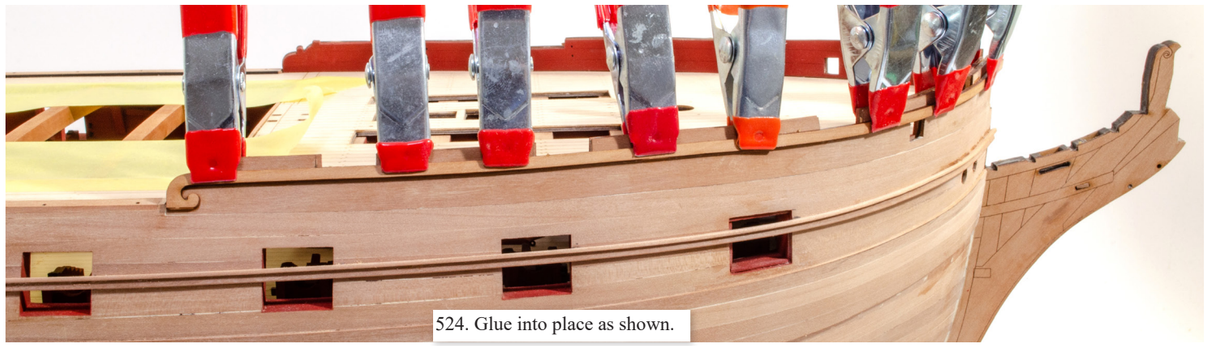
519. From the 0.6mm wood sheet, remove parts #581.

520. Glue them in place as shown.

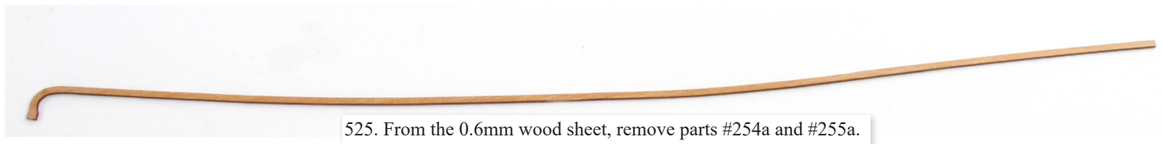
521. From the 0.6mm wood sheet, remove parts #221a, #221b, #221c and #221d. Also remove #222a, #222b, #222c, and #222d.

522. Glue the parts as shown here and on plans. This creates a 3D relief to the upper rails.

523. From the 1mm wood sheet, remove parts #254 and #255.

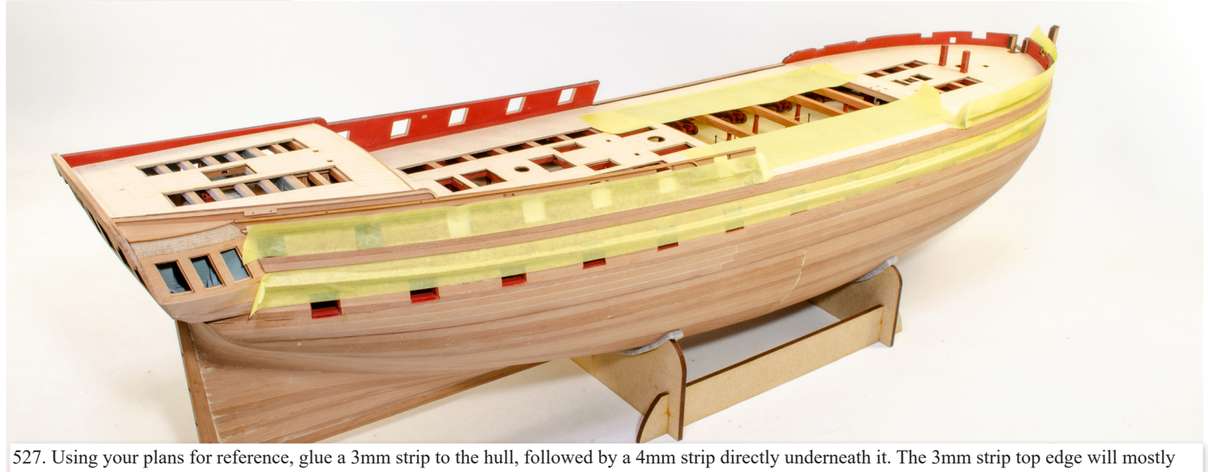


524. Glue into place as shown.

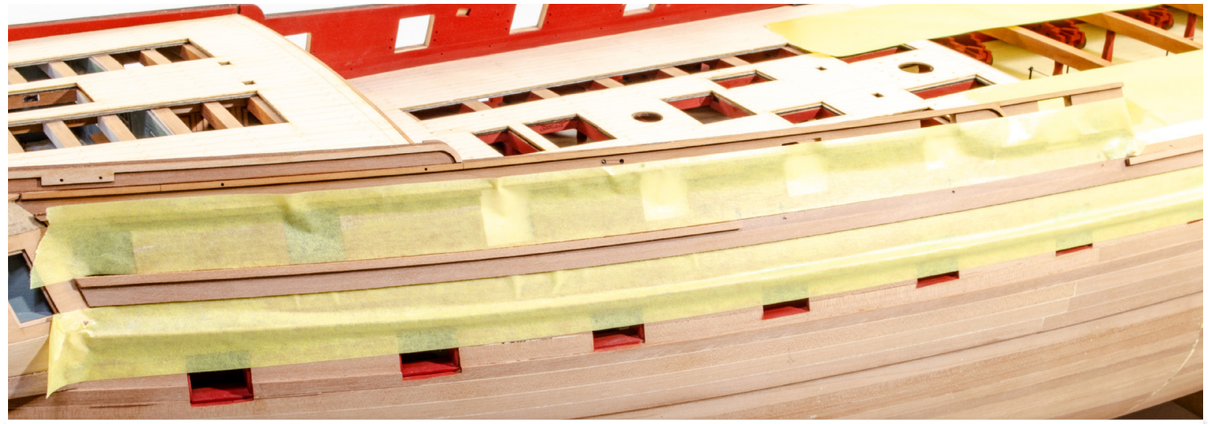


525. From the 0.6mm wood sheet, remove parts #254a and #255a.

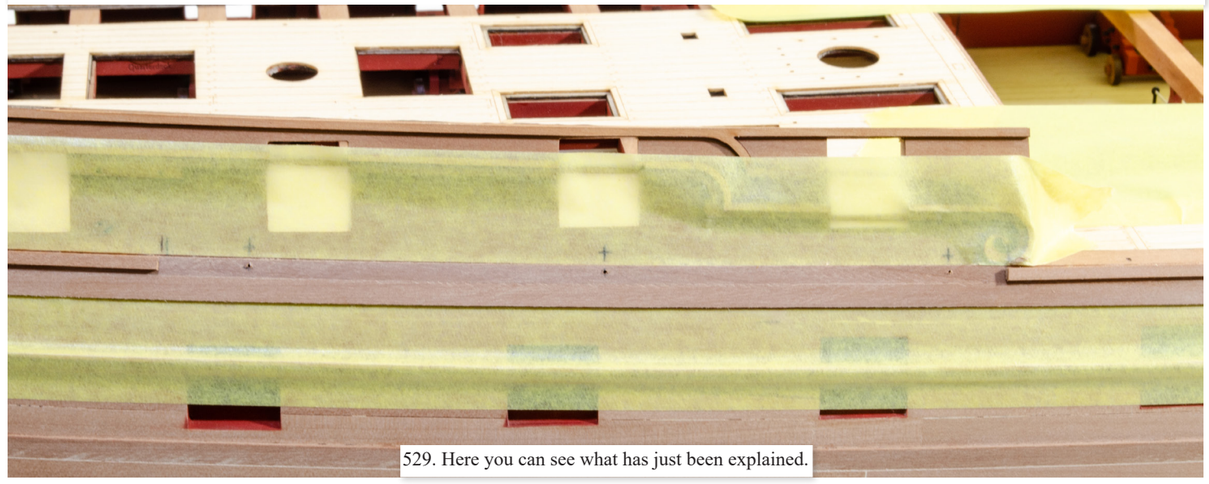
526. Glue into place as shown.



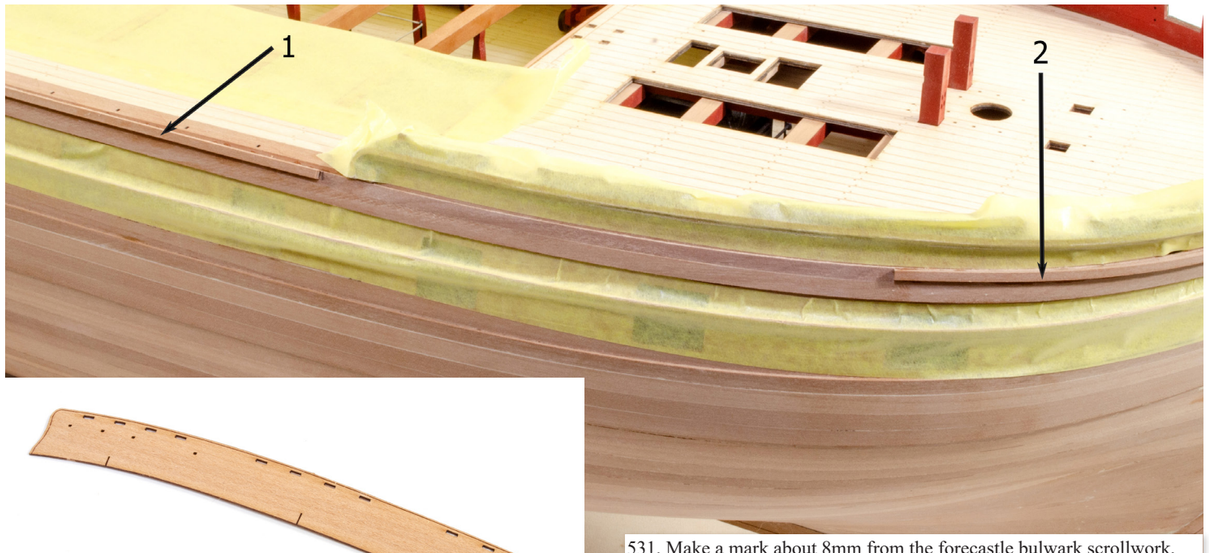
527. Using your plans for reference, glue a 3mm strip to the hull, followed by a 4mm strip directly underneath it. The 3mm strip top edge will mostly follow the upper engraved line still seen on the bulwarks, covering the channel position that you transposed earlier. This photo shows those in place and the outer area masked off so the strips can be sanded smooth.



528. Take a 2mm x 1mm strip and glue along the top edge of this section of the strips you just added. Stop that strip where the rearmost channel position is that you marked earlier.



529. Here you can see what has just been explained.



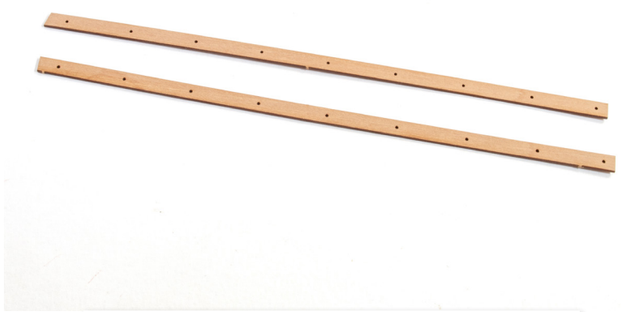
531. Make a mark about 8mm from the forecastle bulwark scrollwork, into the waist area. Now run that 2mm x 1mm strip from the previous channel position to the mark you just made (1). Temporarily sit the channel at the fore end of that strip and make a pencil mark at the front of the channel. Remove the channel and then run that 2mm x 1mm strip from that mark to the bow area (2).

530. Take the main channel part #547 from the 0.8mm wood sheet.

532. Cut away the sections of rail that are obscuring/partially obscuring all gun ports.

533. Here we have used a 12-inch steel rule which is covered in 110 grit sandpaper and used it to evenly sand across the top of the bulwarks, levelling them. Even though we don't show it here, PLEASE make sure all the hull openings are masked. Even out the tops of all bulwarks (poop, quarter, and fore).

534. Tidy up the scrollwork on the forecastle bulwarks.



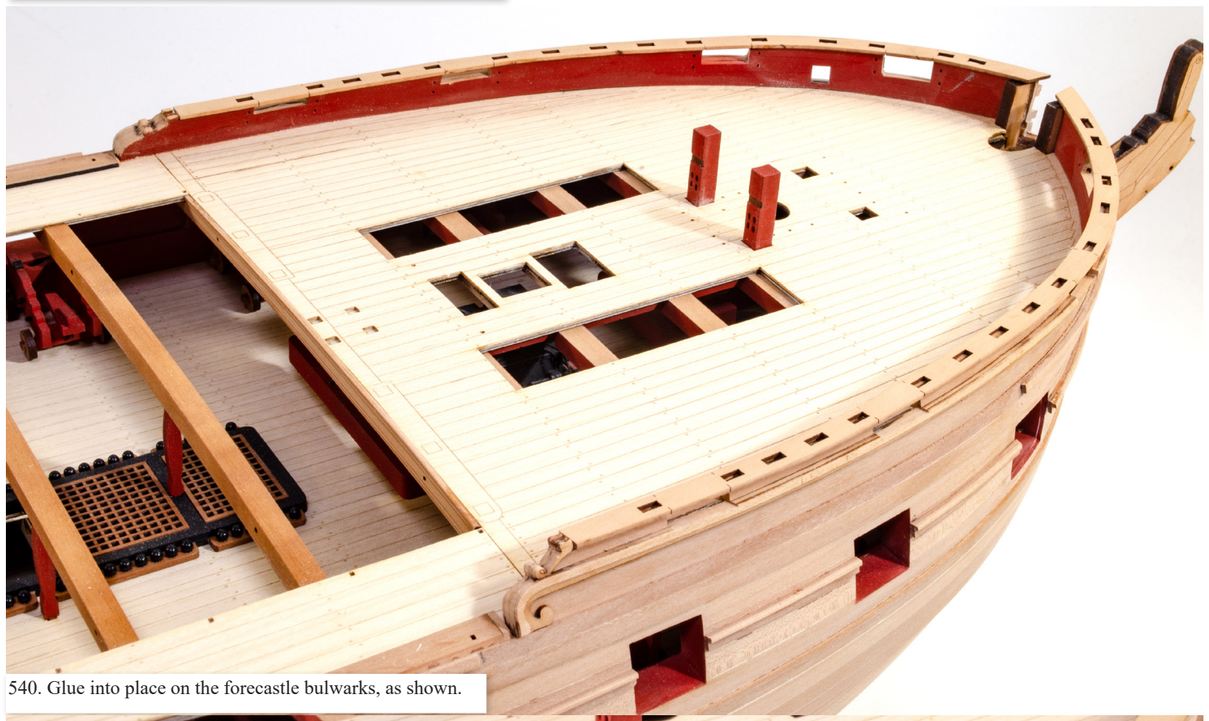
535. From the 1mm wood sheet, remove both parts #218.

536. Glue the parts onto the poop deck bulwarks as shown.

537. From the 1mm wood sheet, remove both parts #217.

538. Glue into place on the quarterdeck bulwarks as shown.

539. From the 1mm wood sheet, remove both parts #216.



540. Glue into place on the forecastle bulwarks, as shown.

541. Remove the cutaway gun port sections from the forecastle gunwales and clean up the edges with a file.

542. From the 1.5mm wood sheet, remove both parts #170.

543. Fit the parts as shown. Please note the orientation and that you will need to trim the height for your specific model. It's also an idea to soak and slightly curve the parts too.

544. From the 1mm wood sheet, remove parts #236 and #237.

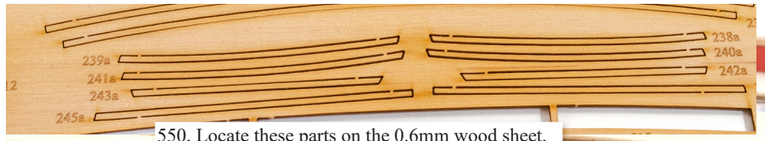
545. Glue the parts into position as shown.

547. Glue into place at the junction between the lower counter and stern planking.

546. From the 1mm wood sheet, remove parts #244 and #245.

548. Identify these parts on the 1mm wood sheet. One set of parts is for the left and one for the right quarter gallery.

549. Glue the rails in place as shown, making sure they blend into the hull and other surrounding rails.

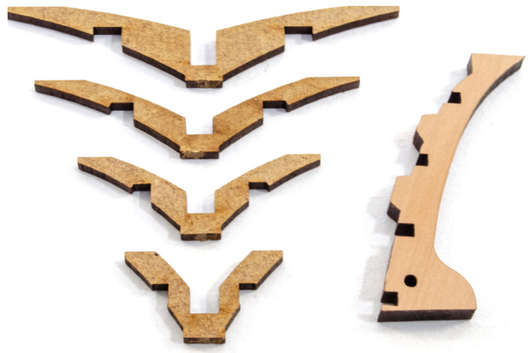


550. Locate these parts on the 0.6mm wood sheet.

551. Glue these into place in the top section of the rails you just fitted, as denoted by the engraved lines.

552. From the 6mm wood sheet, remove both parts #79. Paint the parts red and fit into position as shown. Make sure they fully plug into the deck below.

553. Indefatigable will now look like this.



554. From the 2mm MDF sheet, remove parts #67, #68, #69, and #70. From the 4mm wood sheet, remove part #95.

556. Before the glue dries, sit the assembly onto the hull to assure alignment. Do NOT glue into place.

558. Glue those into place on the assembly as shown in green. You can now remove the assembly from the hull.

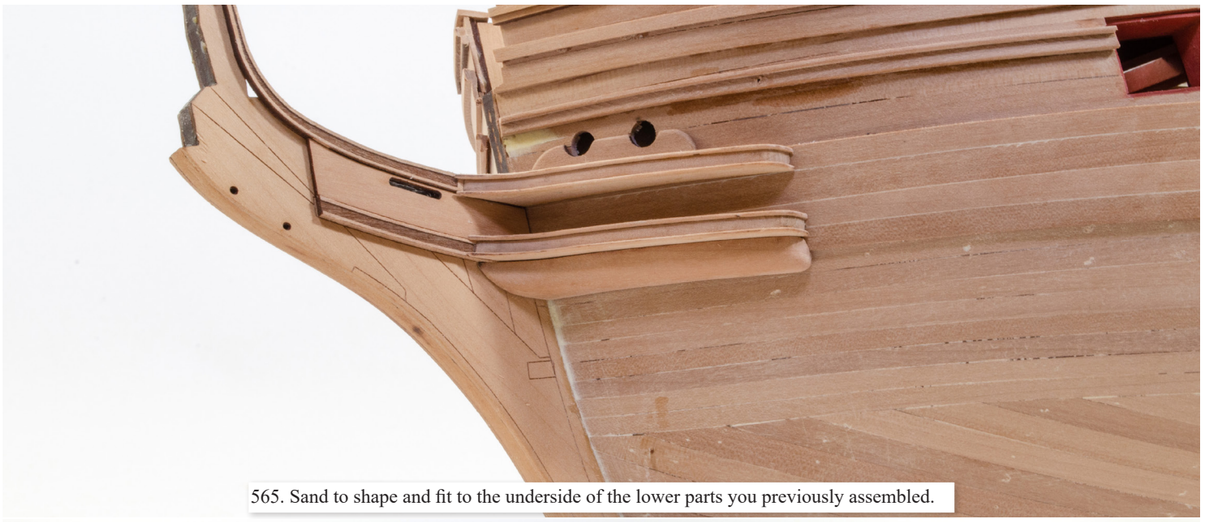
555. Glue the parts into place as shown.

557. From the 1mm wood sheet, remove both parts #209.

559. From the 1.5mm wood sheet, remove parts #171 and #173. From the 1mm wood sheet, remove part #215.

560. Trim and glue those parts to the prow as shown. Now repeat the same process with parts #215, #172, and #174 on the opposite side.

561. From the 0.6mm wood sheet, remove parts 136a. From the 2mm wood sheet, remove parts #136.



565. Sand to shape and fit to the underside of the lower parts you previously assembled.

562. Sandwich the 2mm parts between the 0.6mm parts. It's an idea to round the forward edges of the 0.6mm parts first, for aesthetics.

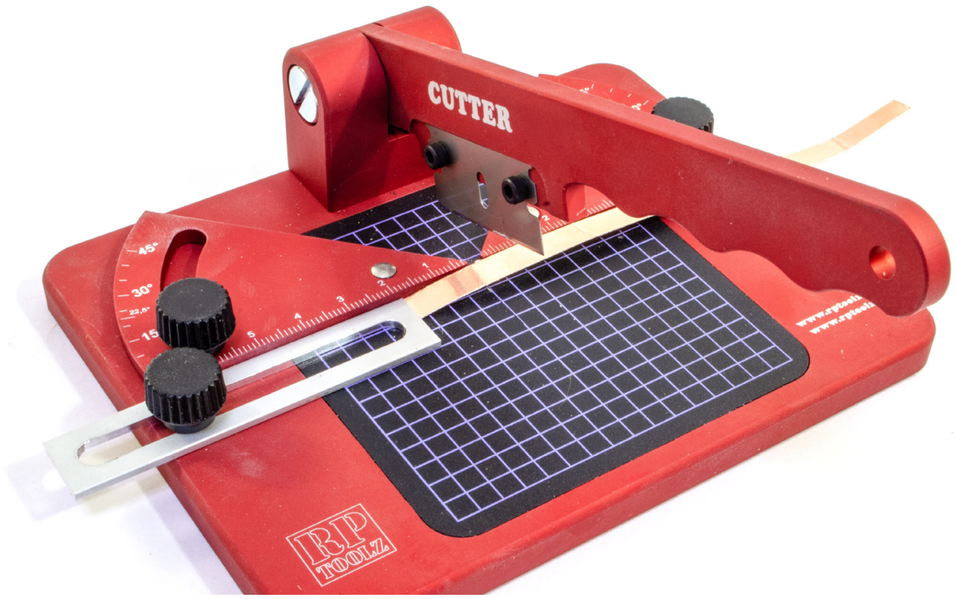
563. Assemble to the model as shown here and on the plans.

566. After carefully masking the hull and blanking any openings, paint the hull in yellow ochre. If you comprehensively mask any openings, you can airbrush this colour. Foam is used to stop paint getting into the gun ports. Note that all of the area to be painted is now in ochre. The reason is that the lighter paint makes it easy to see any defects in the hull at this stage. Paint using thin coats, run back and fill as necessary.

564. From the 5mm wood sheet, remove parts #89. (Wash Cants)

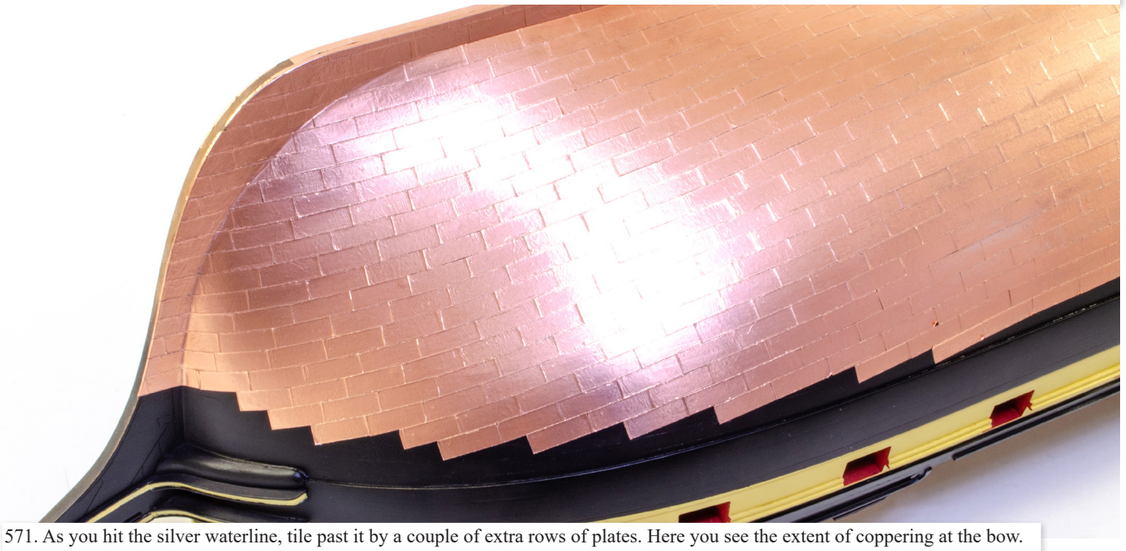
567. Using your plan showing the yellow ochre band position, mask that area off on either side and then paint the rest of the hull in black. It's a good idea to apply the area around the gunwales with a brush as it will allow the model to mostly be sprayed before removing the masking.

568. For our prototype, a waterline was added that was a few millimetres beneath the actual one. Use your plan for reference of actual line. A silver pencil was used for this as it's clearly seen on a black hull. A water-lining tool can be purchased from our web shop.

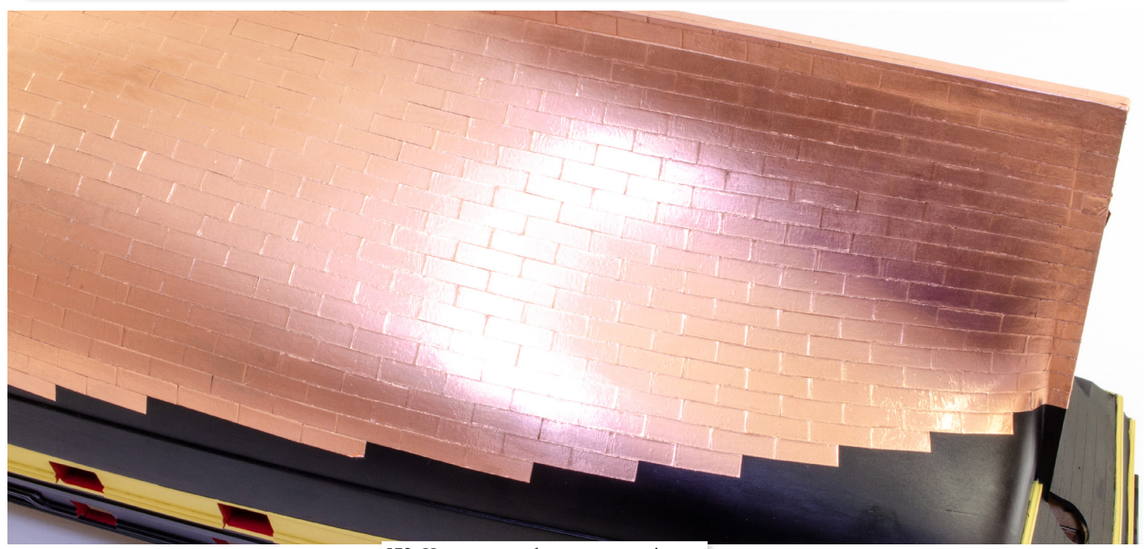


569. For coppering, we supply a roll of 6mm copper tape. This needs to be cut into pieces that are 18mm long. Save a few metres of the tape though. For cutting the tape into identical lengths, we used an RP Toolz mitre cutter due to the high quality. You can use a similar tool to make your plates. We estimate you will need around 2200 – 2400 plates.

570. One of the spare lengths of copper tape was first added as a full strip along the top of the keel, where it meets the hull. The plates were then scored into this with a knife, using a cut copper plate as a template. NOTE: It's important that you keep the tape as straight as possible when you peel the backing off. To do this, we suggest that the end you peel is fastened to the knife blade you will use, and the backing is peeled from the tape, and NOT the tape from the backing! This is important as if you just peel and pull the tape away from the paper, the copper will crease and look distressed. Keeping the tape straight and removing the backing will remove most/all of that problem. Work up from the keel with your coppering, towards the waterline. IMPORTANT: You are advised to wear latex/vinyl gloves when coppering so that the acids on your skin don't 'etch' into the delicate tape surface. Whatever you decide, it's advisable to wash the finished coppering with ethanol/isopropyl and then gently finish with 0000-grade steel wool before adding varnish to it.



571. As you hit the silver waterline, tile past it by a couple of extra rows of plates. Here you see the extent of coppering at the bow.



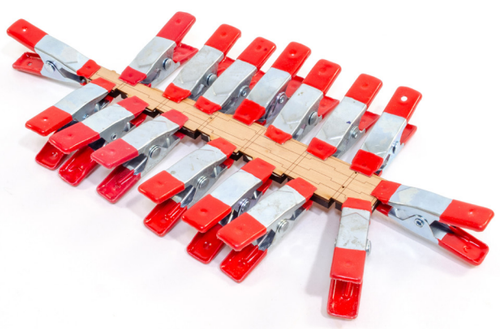
572. Here you see the stern coppering.

573. Position the hull on the cradle and manoeuvre it so that the waterline positions at the bow and stern, match those on your plan. NOTE: The waterline does not run parallel to the keel as the stern sits slightly deeper in the water. Once you have got this right, gently mark along with the waterline tool, using a regular pencil. With this complete, use a fresh knife blade to trim along that line on either side of the hull. Remove the excess tape above the waterline.

574. Here you can see the coppering at the bow. Now copper the edge of the keel using remaining copper plates. Do this on the stern runner post too. Note, you shouldn't need to do this along the underside of the keel as the previous, lower keel plates fold over into that area.

575. From the 0.25mm PE sheet, remove parts PE-82 and PE-83. You can cover these in pieces of copper tape.

577. …and here you see the bow horseshoe.

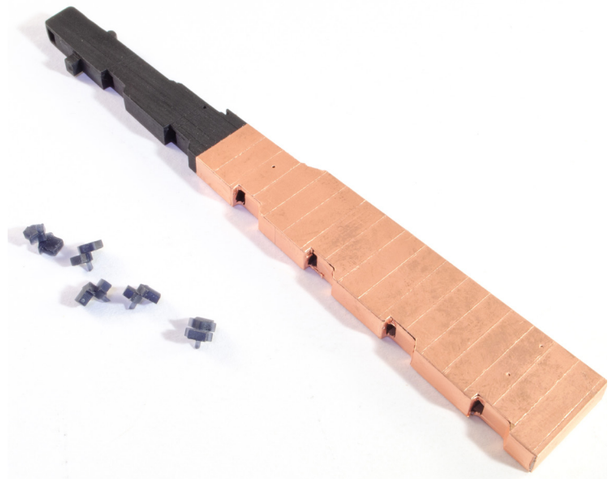


579. Glue the outer parts to the inner core. Clamp until thoroughly set.

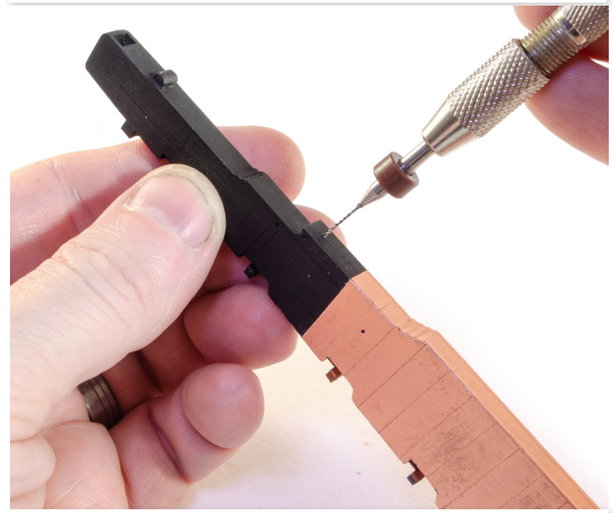
576. Fit these to the hull in the positions shown on the plan. You should be able to identify these areas through the thin copper tape, where the positions are engraved. Glue and pin these into position on both sides of the hull and paint the brass pins in a copper colour. Here you see the stern fishplate…

578. From the 4mm wood sheet, remove part #94. This is the rudder's inner core. From the 1mm wood sheet, remove engraved rudder outer parts #400 and #401.

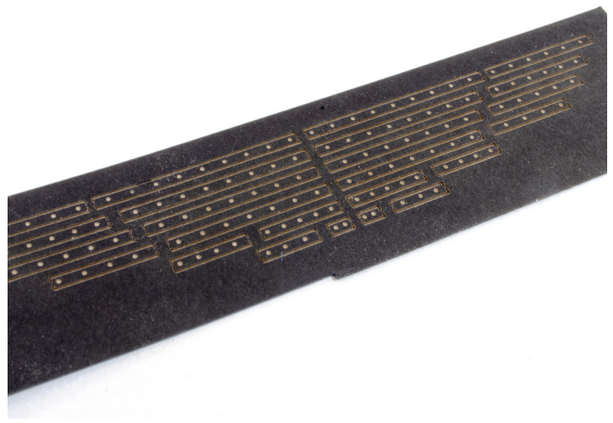
580. The completed timber assembly can be cleaned up and the layers evened out with sandpaper.



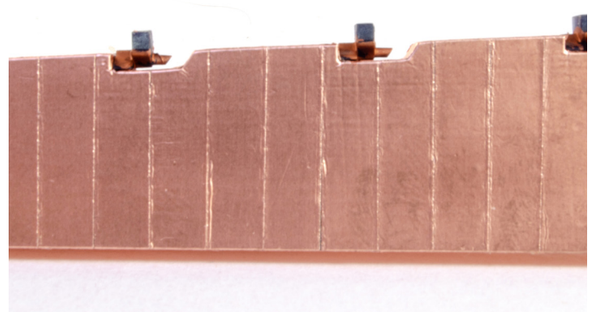
581. Paint the upper rudder in black and add strips of copper tape to the lower area so that it extends beyond the hull waterline when you sit it against the hull. Now take the six rudder brackets, F-8.



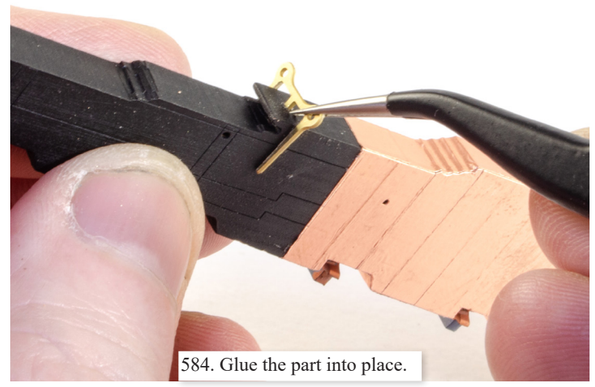
583. From the 0.6mm PE sheet, remove part PE-72. Check the position of this on your plan and drill a 1mm hole into that position in the centre of the rear of the rudder.



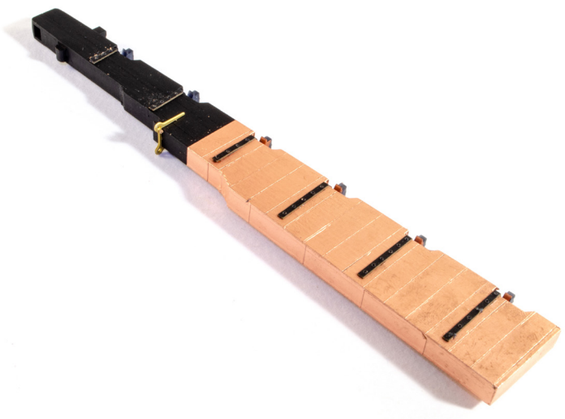
585. You now need the laser-cut black sheet containing the rudder straps.



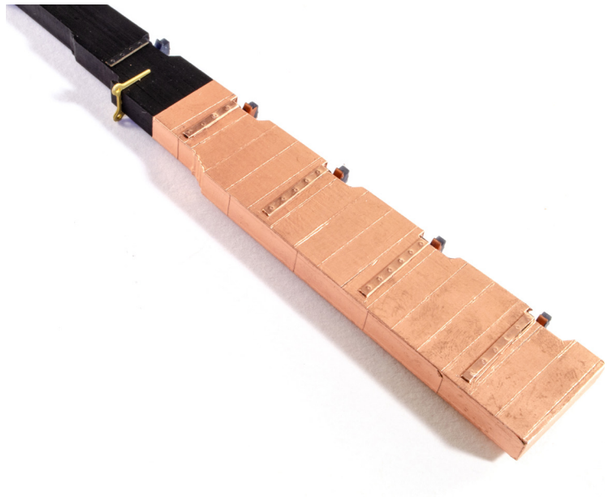
582. Glue these into the holes in the rudder, in this orientation, with the pin pointing downwards towards bottom of rudder, as shown. Paint the ones in the copper area using a copper-coloured paint. You can now temporarily slot the rudder into place and mark the waterline onto the copper and trim accordingly. Now remove the rudder.



584. Glue the part into place.



586. The positions of these should still be visible under the copper and paint. Use your plan to add parts R-7 to R-12 into place. Glue with CA. We found it useful to drill the hole positions at this time.



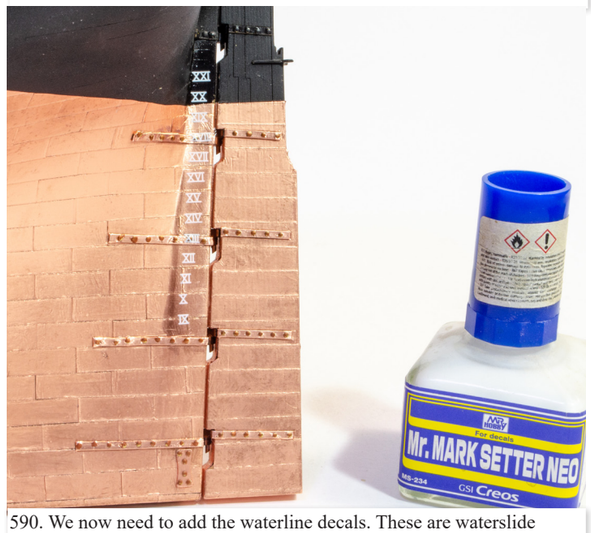
587. Use spare copper tape to cover those in the coppered zone, and then trim to size. Alternatively, you can paint the straps copper.

588. Add brass pins to all of the rudder straps and paint in black/copper accordingly.

593. Glue the sides #428 and #429 onto the 4mm core. Clamp until set.

594. Now glue the top and bottom parts #424 and #425 into place and clamp until dry.

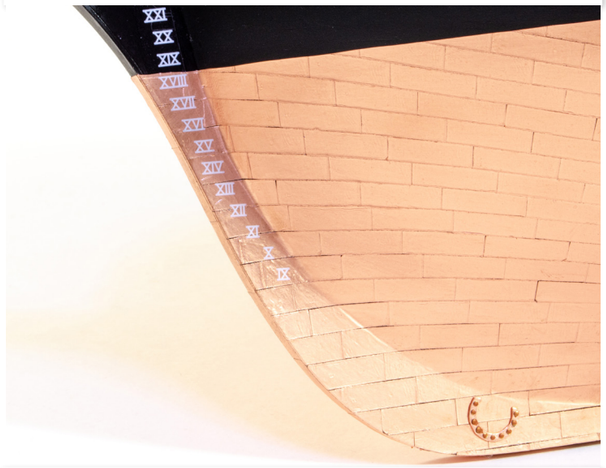
589. The rudder can now be finally glued into place. You should now fit the rudder straps to the hull, R-1 to R-6 and copper them in the same manner. You may also find it useful at this stage to protect the copper using a sealant or varnish etc.



590. We now need to add the waterline decals. These are waterslide decals, and for this, we suggest using a good decal setting solution which will help the decal settle into the details.

595. Glue part #430 onto the square end of the cathead and then the smaller #431 onto that.

596. Use the remaining cathead parts on those sheets and build another cathead.

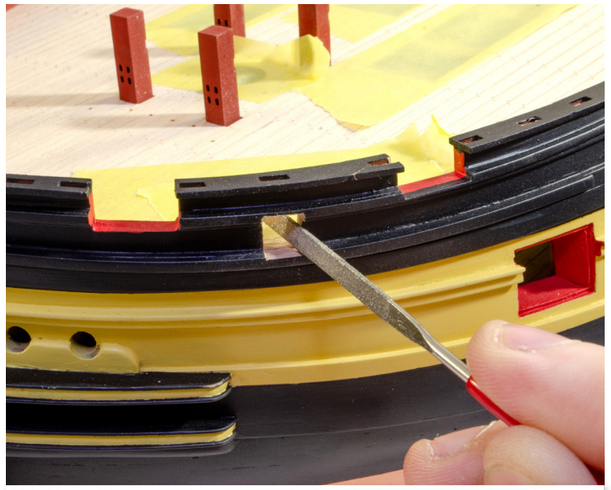


591. Here you see the decal at the bow. Fit these decals to both sides of the hull. We also provide an extra set of decals in case you have an accident.

592. We now come to building the catheads. These are ‘handed’, meaning each will be fitted to a specific side of the hull. From the 1mm wood sheet, remove one part #424 and #425. Also remove parts #429 and #428, and one part each of both #430 and #431. From the 4mm wood sheet, remove one part #96.

597. From the 3mm wood sheet, remove both parts #107. Glue them to the catheads as shown. You will see the marked area on one side of each cathead, clearly showing the location.

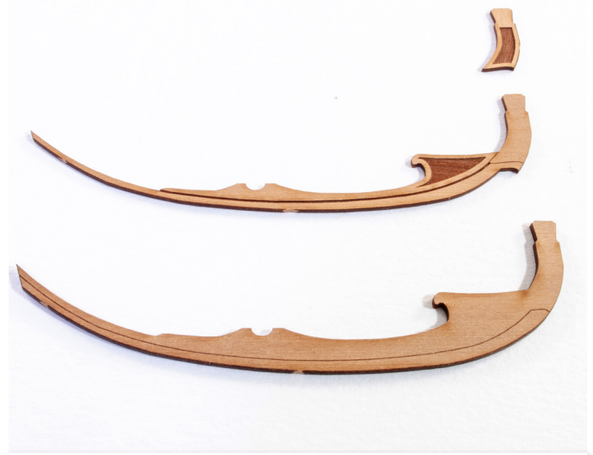
598. Paint both catheads as shown.



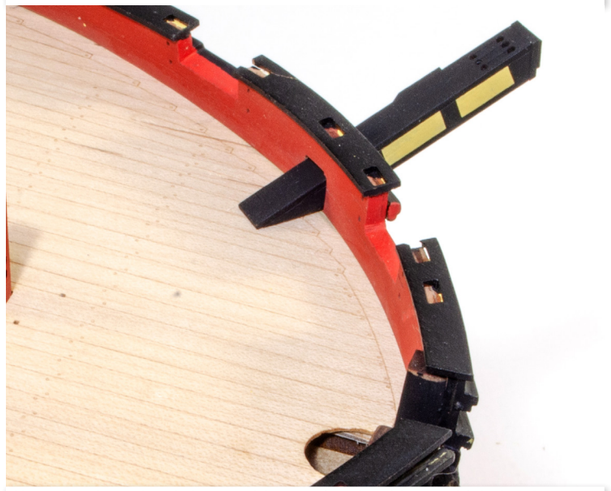
599. You will now need to open up the hole in the bow into where the catheads will fit. Be very careful with this, and use small files where possible, and a sharp knife. Keep checking the fit of the catheads.

600. Once you have opened up the holes properly, remove the small section of the upper rail directly underneath the cathead hole.

605. Use a sanding stick to level the tops of the frames between the largest and second largest. Then add a level between the second largest and the next in line. These are where the bow grates will sit, and the grates need as much of a connection as possible when seated on these frames. Now sit the assembly to one side.



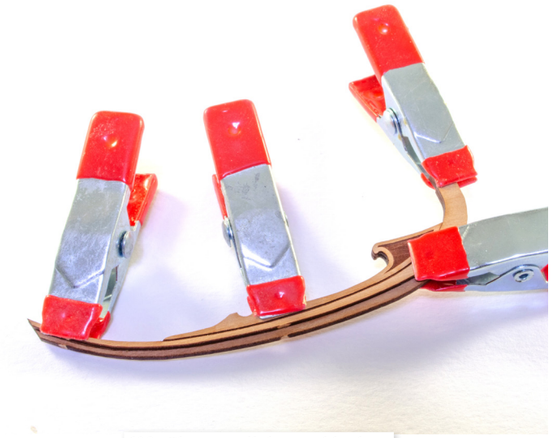
606. From the 1.5mm wood sheet, remove part #201. From the 1mm wood sheet, remove part #203 and #205.



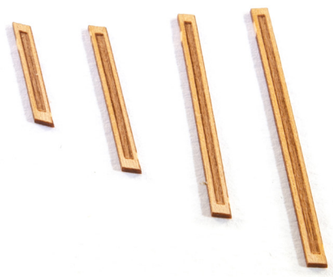
601. Glue the catheads into position, noting the side on which the cleats are fitted. These should be to the rear of the cathead.

602. From the 2mm wood sheet, remove all parts #134 and #135. These can be slightly shaped at the head, as shown in the photo. Now glue the parts into the slots in the gunwale, with parts #134 fitting either side of each gunport.

607. Glue part #203 over part #201. The engraved marks will show you exactly where this will fit.

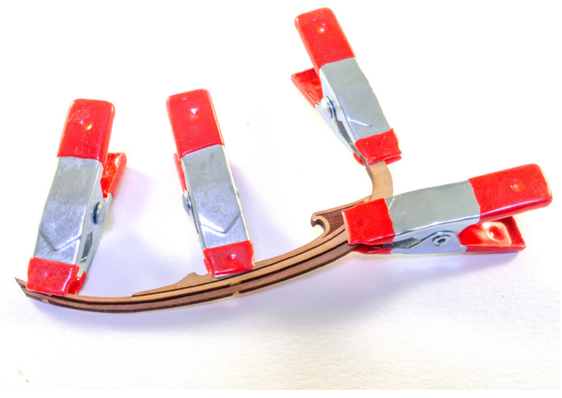


608. Clamp until thoroughly dry.



603. From the 0.6mm wood sheet, remove parts #501, #503, #505, and #507. These are left-side parts. Now remove parts #502, #504, #506, and #506. These are the right-side parts.

604. Glue each set into position on this assembly. These shouldn't need soaking and can be easily glued.



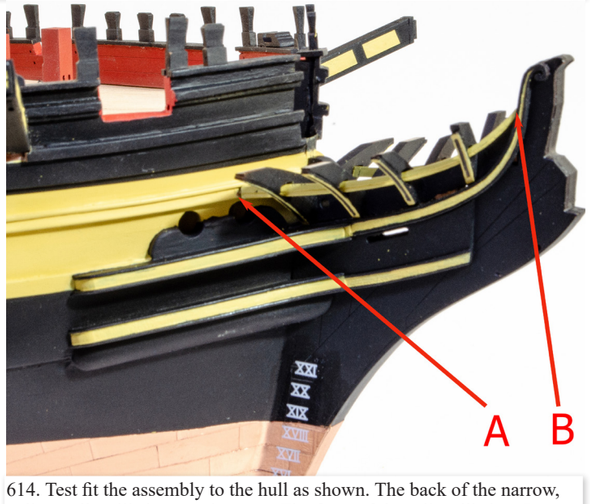
609. Glue part #205 over the previous assembly, as shown.

610. Clamp until dry.

611. Now do the same for the head timbers which will install to the opposite side of the bow.

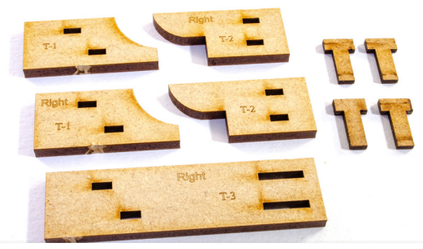
612. From the 1mm wood sheet, remove parts #210, #211, #212, and #213. Paint the parts/assemblies as shown here. A tip for the narrow black lines is to use a 0.1mm Edding/Draftsman blank ink pen.

613. Slide the two narrow rails you just painted, through the bow frame assembly. You will need to slightly file/angle the openings in the frame assembly so that the rails pass through easily.

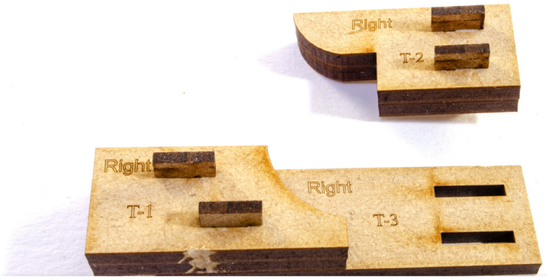


614. Test fit the assembly to the hull as shown. The back of the narrow, yellow rails will sit around area A. The front of the rails will sit at B. When you are happy you have this right, trimming the rails as necessary, you can glue the assembly to the hull.

615. Glue parts #212 and #213 into place between the recess underneath each cathead and the rear of the narrow rails you just added. You will need to trim the parts as necessary.



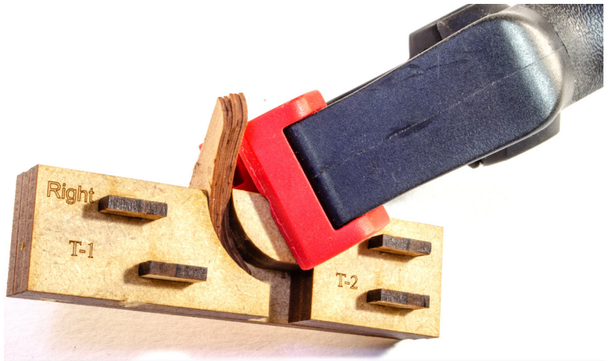
616. From the 4mm MDF sheet, remove parts shown here, including the parts T-7 on the 2mm MDF sheet.



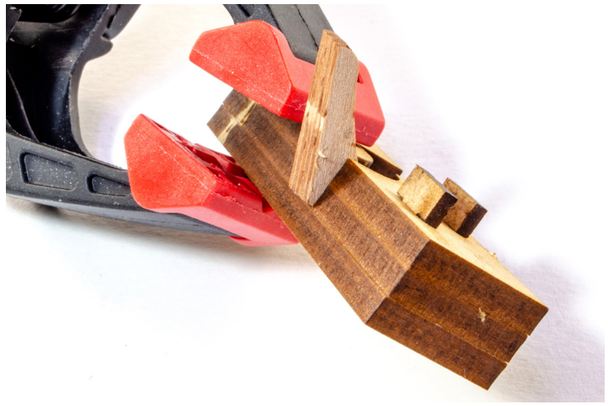
617. Glue parts T-1 and T-1 Right together, and then glue to T3, using the pegs to align. Now glue parts T-2/T-2 Right together and glue in the pins to align. IMPORTANT. Wait for the last parts to dry before installing to the base of the jig T-3. DO NOT glue into position. This side of the jig must be able to slide.

618. Now make the jig for the left-hand side of the hull

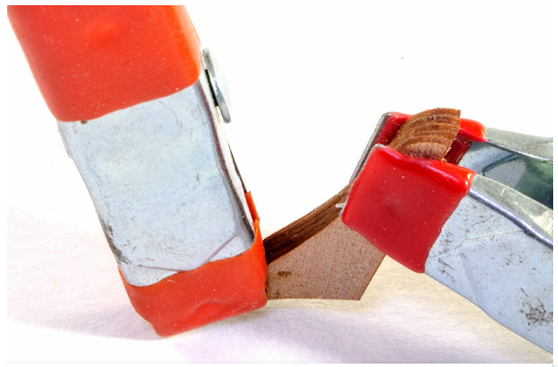
619. The jigs you have made are to help build the cathead knees. These timbers need to curve. From the 0.6mm wood sheet, remove all parts #510.



620. Soak these pieces in hot water for 30 minutes, then sandwich them together (no glue) and position in the jig as shown, closing up the sliding side to induce a curve in the parts.

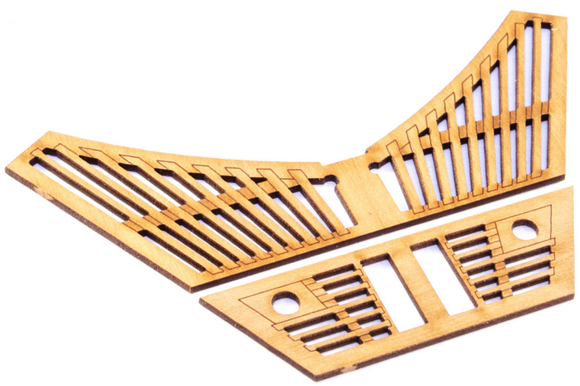


621. Leave the parts for 24hrs to dry in the jig. Remove from the jig and carefully glue the laminations together.



622. You can then either clamp these or return to the jig until the glue has set.

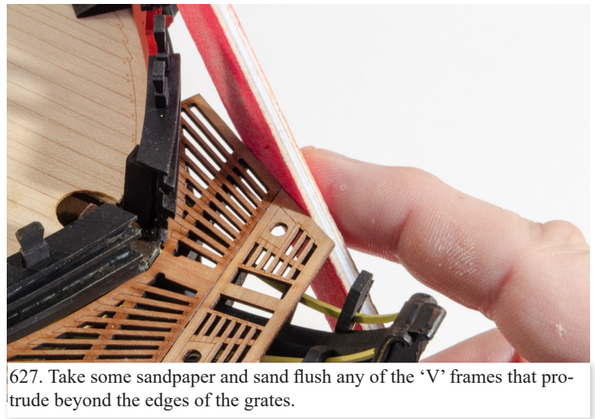
623. Use sandpaper to smooth the edges of these parts and adjust them so they sit under the catheads as shown here. You can now paint these. We opted for black sides with an ochre fore edge, so suit the painting conventions we are using.



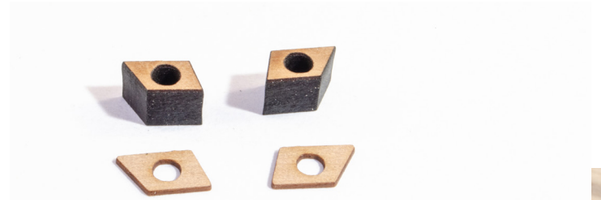
624. From the 1mm wood sheet, remove parts #207 and #208.

625. Glue part #207 into place as shown and clamp until set.

626. Now glue part #208 into position.

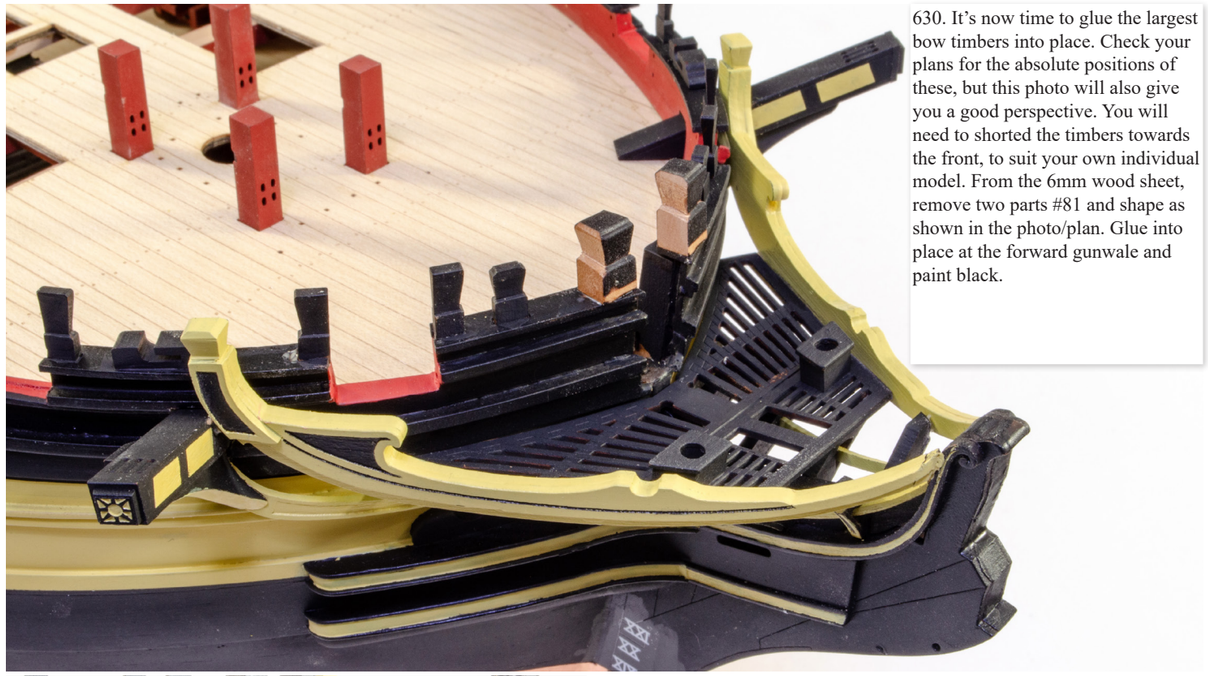


627. Take some sandpaper and sand flush any of the ‘V’ frames that protrude beyond the edges of the grates.



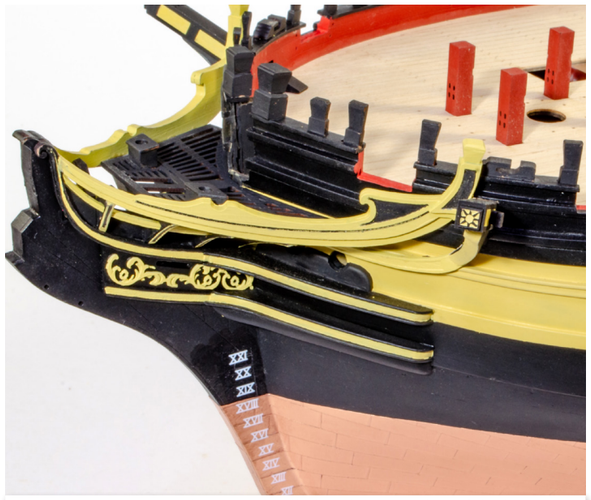
628. From the 6mm wood sheet, remove parts #82 and #83. From the 0.6mm wood sheet, remove both parts #509. These are the ‘seats of ease’. Luxury was all!

629. Glue the parts together as shown here and bevel the underside of them so that they sit horizontally onto the fore bow grate. Glue the assemblies into place. You can now paint the bow grates etc. in black.



630. It's now time to glue the largest bow timbers into place. Check your plans for the absolute positions of these, but this photo will also give you a good perspective. You will need to shorted the timbers towards the front, to suit your own individual model. From the 6mm wood sheet, remove two parts #81 and shape as shown in the photo/plan. Glue into place at the forward gunwale and paint black.

631. Now is a good opportunity to take the 0.6mm PolyBak sheet and paint all of the ornamentation in yellow ochre. From that sheet, remove parts PB-1 and PB-2 and glue either side of the bow as seen here. CA gel is ideal for this, in small spots as it allows a few seconds to finalise the position.



632. Here you can see the décor applied to the other side of the bow.

633. Although we don't advise fitting this at the moment, it's perhaps a good time to paint the figurehead.

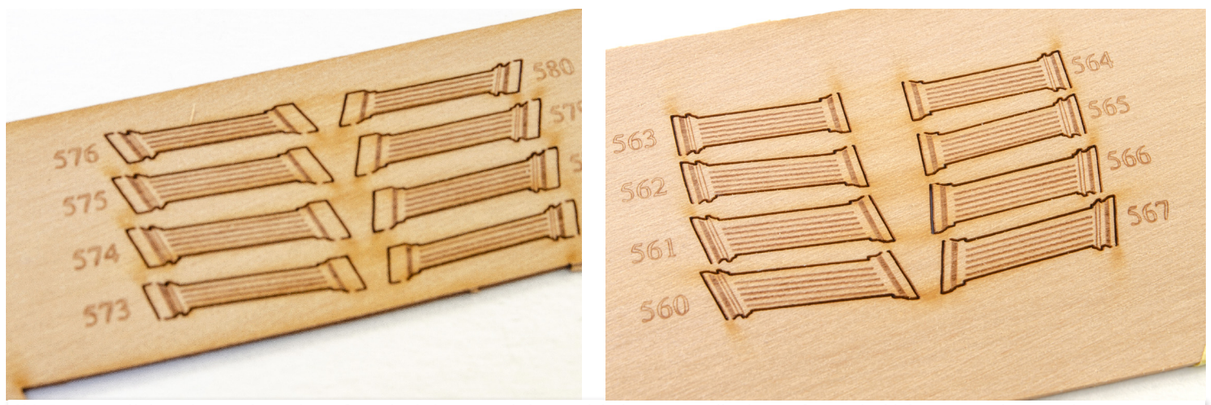
634. The colours shown here are only advisory, but we've gone with what we think would've been used on such a figurehead.

635. These photos show the figurehead on a test fit. Once you are happy that it fits ok, carefully put it to one side until later.

636. Take the two lower 3D quarter gallery parts…

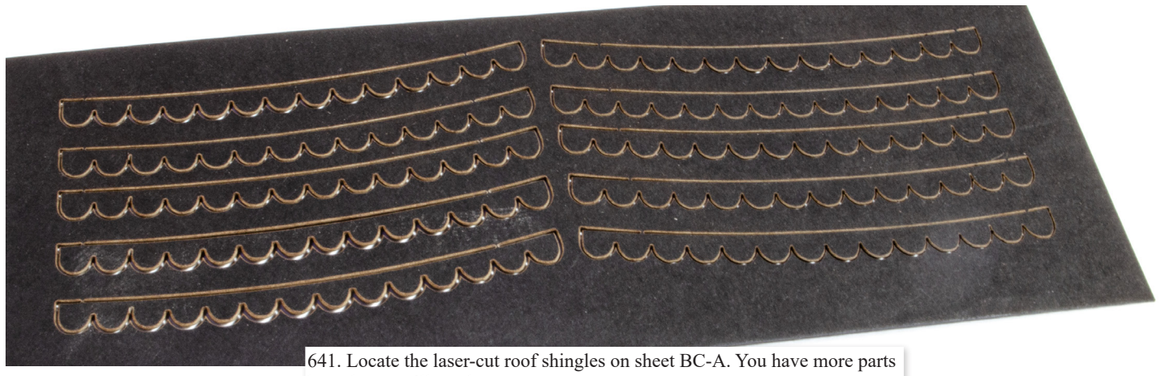
637. …and fit them below the quarter gallery areas. The base of these is generic, so you will probably need to trim/sand them to fit precisely. TIP: If you struggle to shape the base, clip the material away below the nipple, down to base height and then glue the nipple into position and build up the base using an epoxy putty. Paint the area as shown and then add an ochre-painted rail above it. These parts are #512, found on the 0.6mm wood sheet.

638. It's now time to consult your plans and first install the windows into the openings. These are found on the 0.5mm PETG sheet. Remember, you can install the stern windows either open or closed, or a combination of both, as seen here. Paint the window frames in ochre and install over the glazed parts. The frames can be found on the 0.4mm PE sheet. Don't get the frames mixed up as each is specific to its opening.



639. Remove all the columns shown here, from the 0.6mm wood sheet. Stick them to an adhesive surface and add the part numbers nearby so you can identify them. Paint all columns in ochre. The engraved lines can be picked out in black, to highlight the detail, if desired.

640. Glue all columns into place as shown, using your plans for reference.



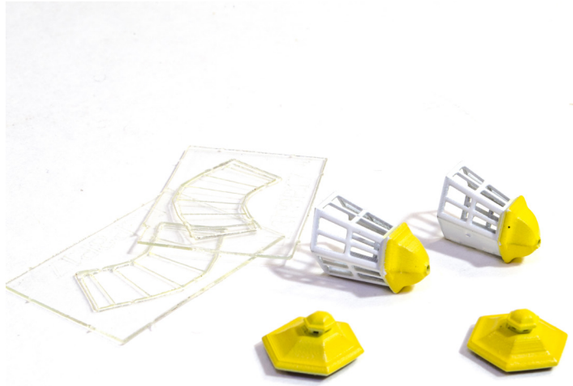
641. Locate the laser-cut roof shingles on sheet BC-A. You have more parts here than you'll need.

642. Starting directly over the upper gallery rail, install the rows so they overlap, trimming to length as you go. I used CA gel to glue these.

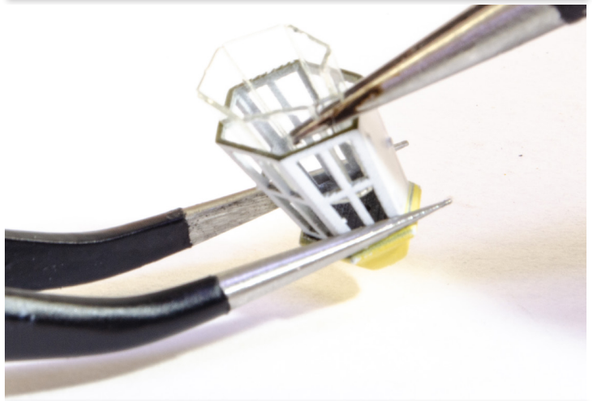
643. All of the stern décor is supplied as laser-engraved parts. These are located on the small 0.6mm PolyBak sheet. The best way to paint these is to remove them from the sheet first and then you can access properly with an airbrush/brush. Paint in ochre.

645. From the 0.4mm PE sheet, remove both parts #46. Also take the two parts of brass wire from the lanterns pack. Bend and cut the wire to the bracket profile shown on the plans.

646. Install the parts to the holes on the stern of the hull, adjusting as per plan.

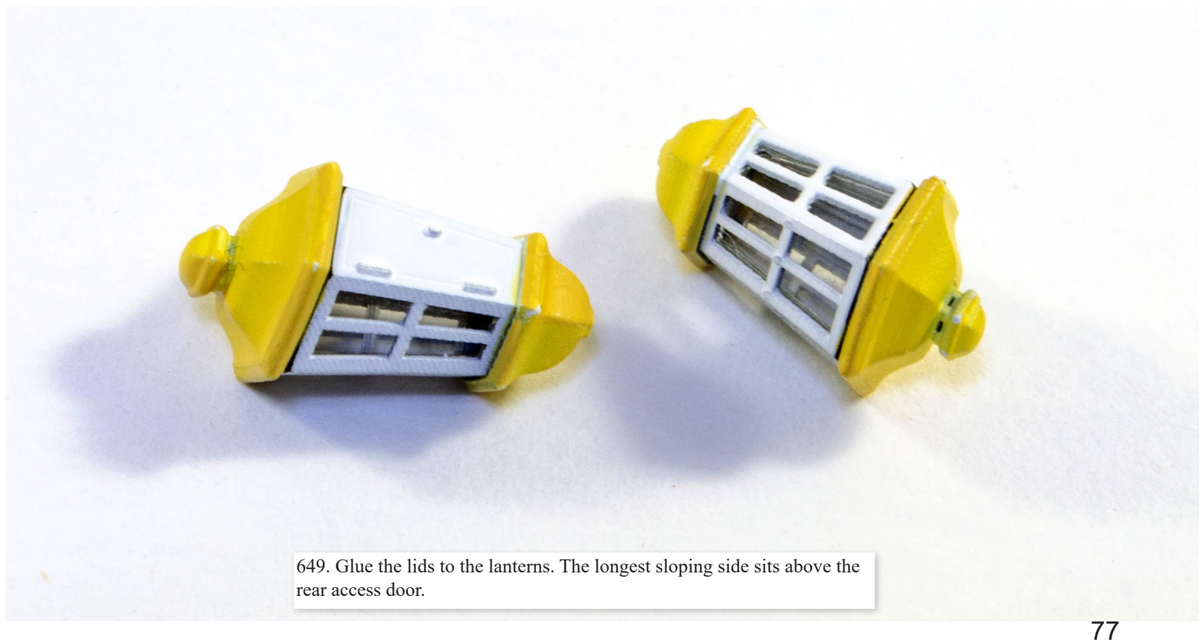


647. Paint the lantern parts as shown here.



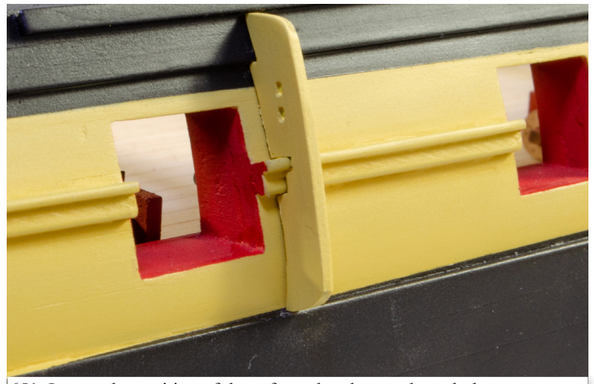
648. Remove the glazed parts from their sheet and bend into shape as shown. Push the glazing into the lantern.

644. Glue into place as shown. Also take the name decal for the ship and apply to the panel below the windows. It's advisable to make sure the panel is painted in gloss varnish before you add the decal. This will prevent silvering. We also advise using a decal setting solution to help it sink into any wood grain details.



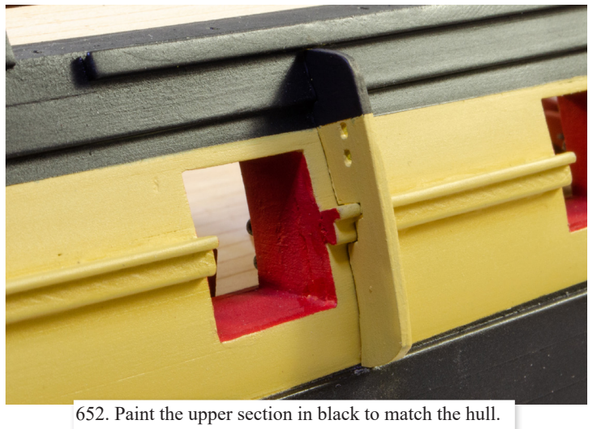
649. Glue the lids to the lanterns. The longest sloping side sits above the rear access door.

650. From the 1.5mm wood sheet, remove both parts #181.



651. Locate the position of these from the plans and notch the parts to suit the position of the rails on your hull. Paint the parts yellow and glue to the hull.

656. Paint the upper area in black to match the hull.



652. Paint the upper section in black to match the hull.

653. From the 1.5mm wood sheet, remove four parts #180.

657. From the 0.6mm wood sheet, remove all parts #516 and #517.

658. Glue the parts as shown. These are the hull side steps.

654. Again, profile these to suit your hull and the rails, then paint in yellow and glue the forward one to the hull on each side, referencing the position on your plan.

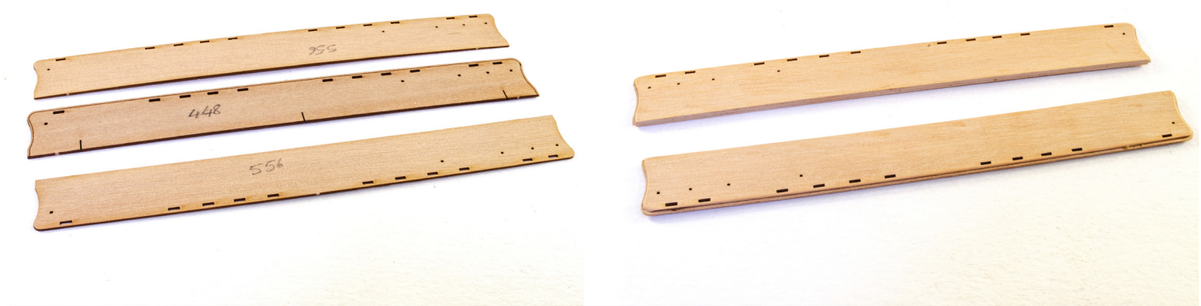
655. Use a piece of scrap 4mm plank as a spacer and glue the other #180 to the other side of the original one.

659. Paint the steps and glue into position as per plan. Use the edge of some tape as a guide to getting them in line.

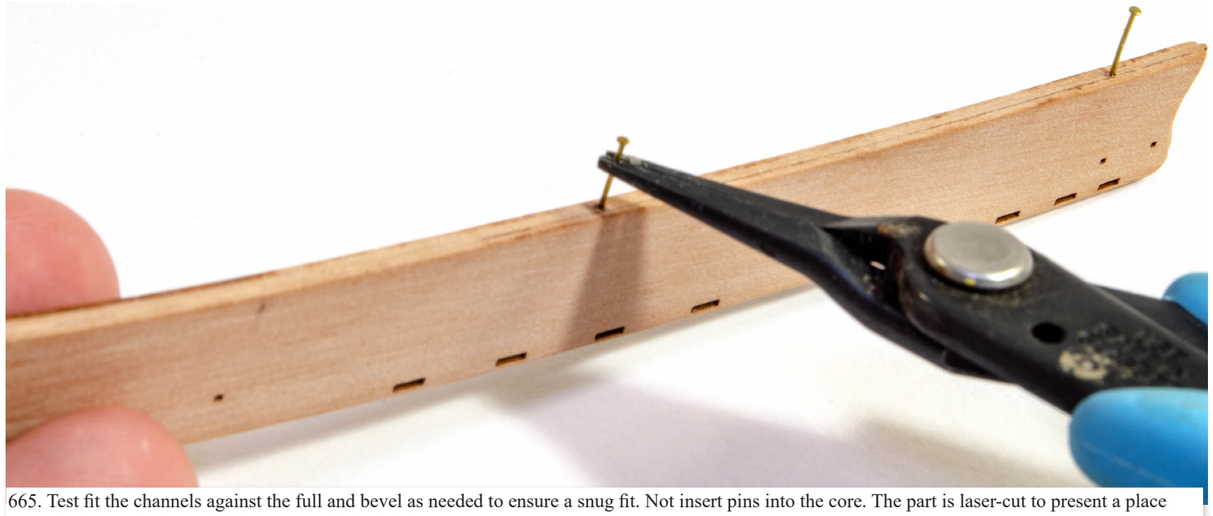
660. From the 0.8mm wood sheet, remove centre core parts #455 and #456. From the 0.6mm wood sheet, remove all outer panels #559. Round the outer edges of the inner core parts, and then round one side of the outer panels that sit onto the cores. Glue together as shown. Clamp as necessary.

661. From the 0.8mm wood sheet, remove centre core parts #450 and #451. From the 0.6mm wood sheet, remove all outer panels #558. Round the outer edges of the inner core parts, and then round one side of the outer panels that sit onto the cores. Glue together as shown. Clamp as necessary.

663. From the 0.8mm wood sheet, remove centre core parts #454. From the 0.6mm wood sheet, remove all outer panels #557. Round the outer edges of the inner core parts, and then round one side of the outer panels that sit onto the cores. Glue together as shown. Clamp as necessary. Make two.



664. From the 0.8mm wood sheet, remove centre core parts #458. From the 0.6mm wood sheet, remove all outer panels #556. Round the outer edges of the inner core parts, and then round one side of the outer panels that sit onto the cores. Glue together as shown. Clamp as necessary. Make two.



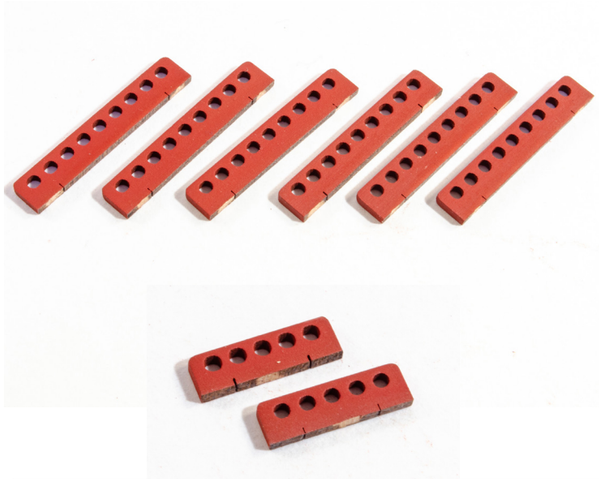
665. Test fit the channels against the full and bevel as needed to ensure a snug fit. Not insert pins into the core. The part is laser-cut to present a place into which to push the pins. If necessary, drill slightly to open up.

666. Glue each channel into position on the hull, referencing your plans. Ensure you scrape away any paint from the contact surfaces.

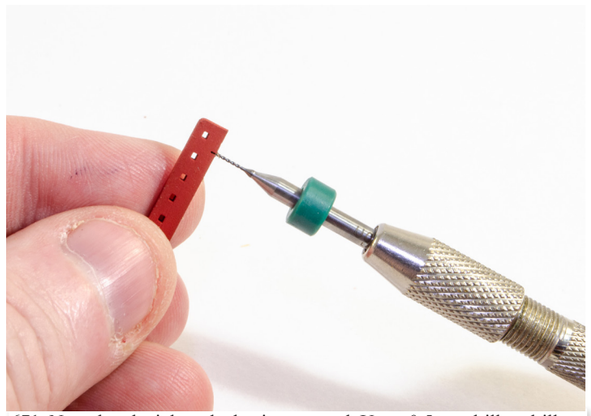
667. Now glue the channel knees to the channels, referencing your plans for the correct knees. Whilst the angles of the knees should be very close)if not correct) to your hull, you will need to profile them differently against the hull as you more forward along the fore channel. This is where the hull angle will change from station to station.

668. Locate the deadeye strops on the 0.4mm PE sheet and then follow this process to insert the various size deadeyes into their appropriate strops. It's advisable to paint the strops black first and then just touch up any damaged paint afterwards.

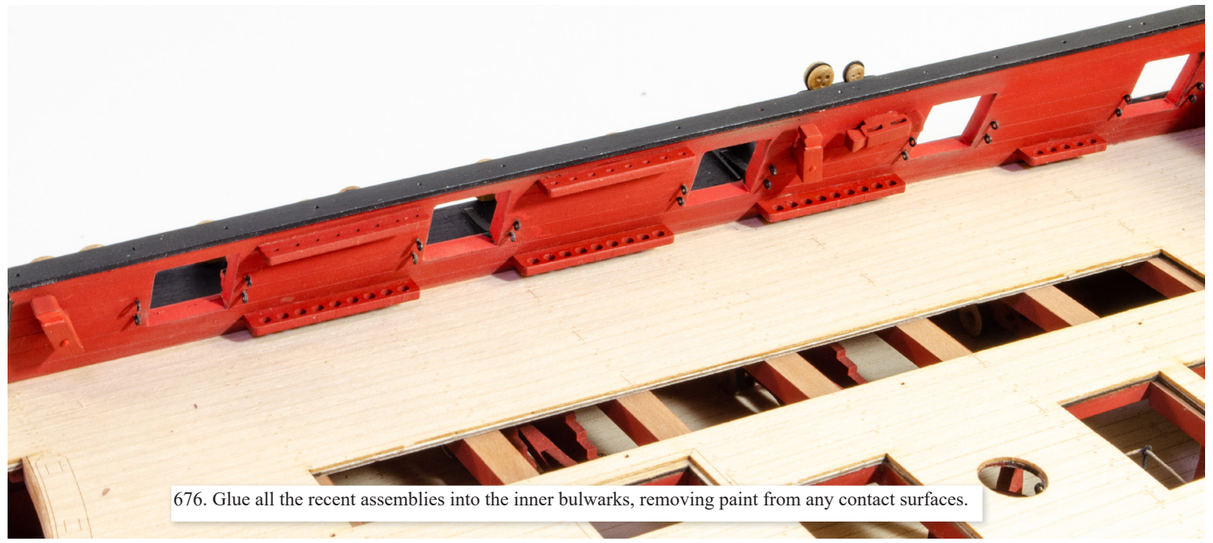
669. Slide the completed strops into their channel locations and then complete the chainplate assemblies to the hull, as shown on your plans. Use brass pins to secure the plates to the hull, with a spot of CA.



670. From the 1.5mm wood sheet, locate the carronade shot garlands #176 and paint them red. Also locate the short shot garlands #175 on the same wood sheet.



671. Note that the inboard edge is engraved. Use a 0.5mm drill to drill a hole in the centre edge of each part. This is to insert the locating pins into. You will need to bevel the connecting face so the part sits horizontally when installed.

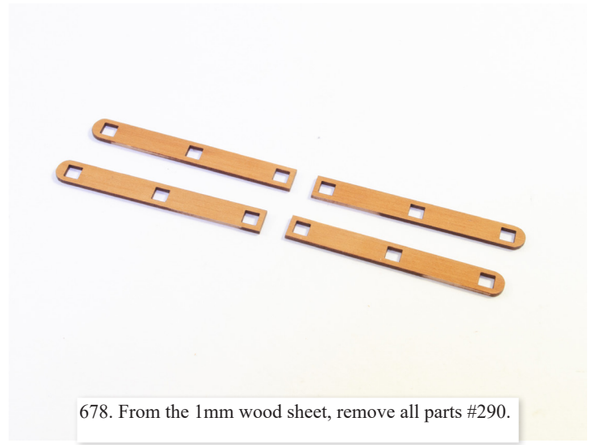


676. Glue all the recent assemblies into the inner bulwarks, removing paint from any contact surfaces.

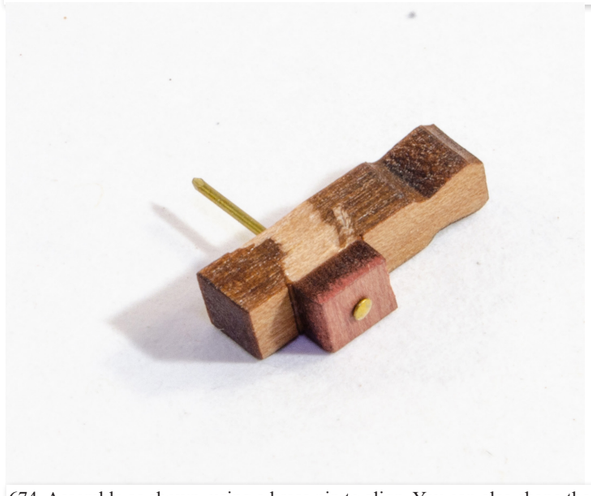
672. We supply a jig T-8 to use as a spacer between the show garlands and the belaying pin racks shown here. The jig is a legacy part as holes in the bulwark are a better way to locate the parts. However, use the jig if you feel it's needed. The belaying pin racks #177 are found on the 1.5mm wood sheet. Again, drill the marks for to add the locating pins for fastening to the bulwark. You will need to bevel the connecting face so the part sits horizontally when installed

673. From the 3mm wood sheet, remove parts #113. From the 1.5mm wood sheet, remove parts #179.

677. Install the shorter belaying pin racks into the bow area.

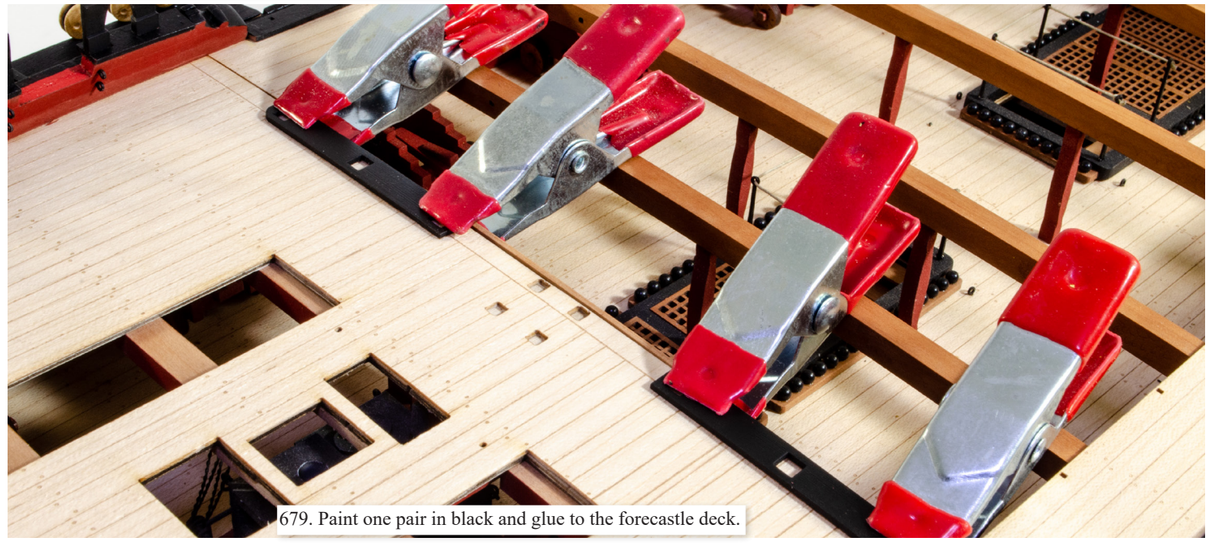


678. From the 1mm wood sheet, remove all parts #290.



674. Assemble as shown, using a brass pin to align. You can also shape the timberhead and paint the assembly in red.

675. From the 3mm wood sheet, remove the parts #110. Shape the timberheads and paint red.

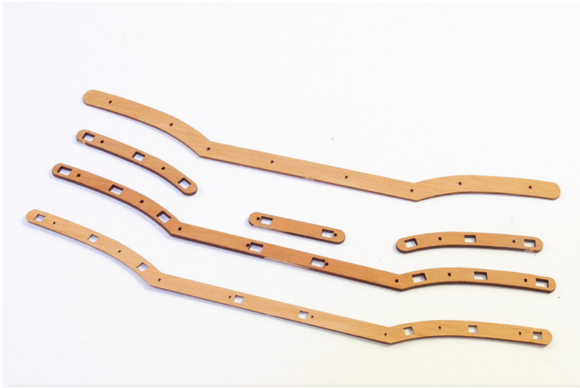


679. Paint one pair in black and glue to the forecastle deck.

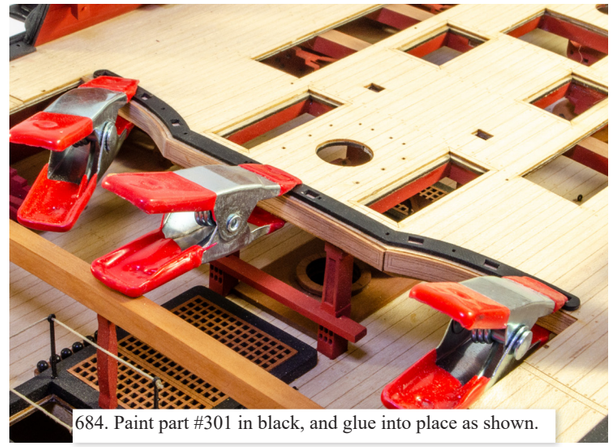
680. From the 3mm wood sheet, remove all parts #106.

681. Glue into position as shown.

682. Take the other pair of parts #290, paint black and glue into position as shown. When dry, paint the pillars in black too.



683. From the 1mm wood sheet, remove parts #301, #302, #303, and #304. From the 0.6mm wood sheet, remove parts #499 and #500.



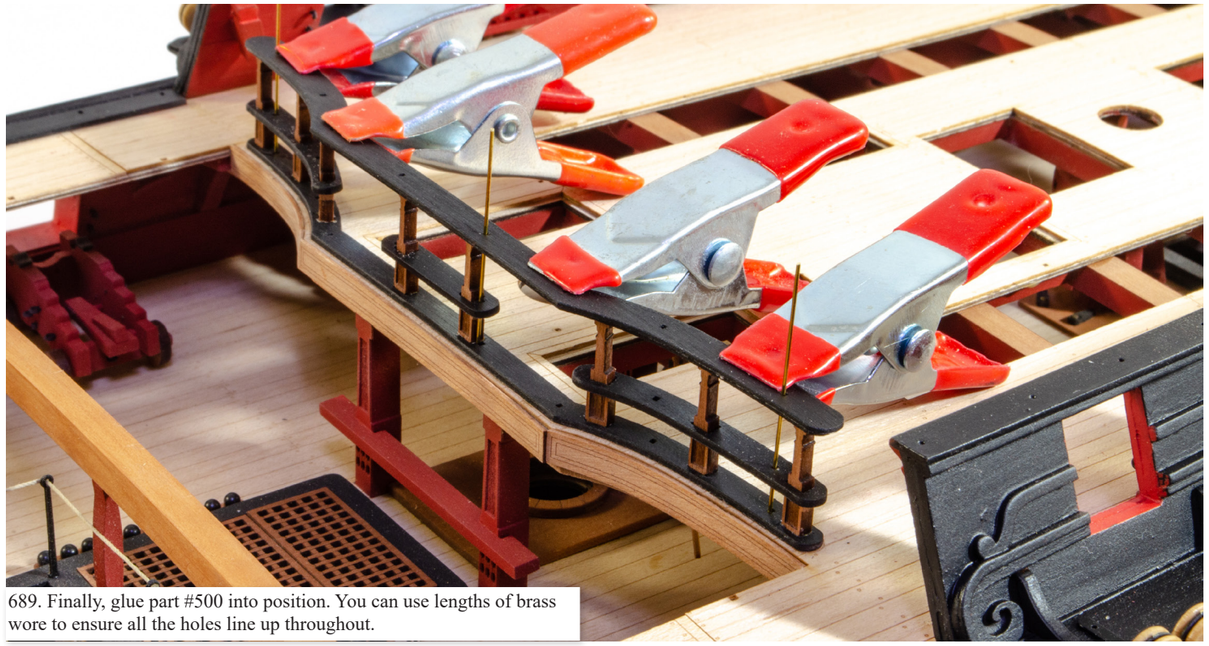
684. Paint part #301 in black, and glue into place as shown.

685. From the 2mm wood sheet, remove all parts #114. Note that these parts have letters to identify their location.

686. Glue each into its position as shown on the plan, into the correct letter position. The engraved face should be forwards.

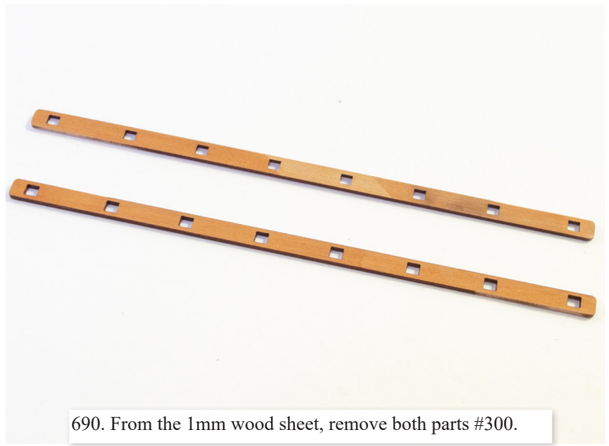
687. Glue parts #302, #303, and #304 into place as shown, after painting black.

688. Now glue part #499 to the top of the pillars. If any of the columns protrude, then sand flush with top of part.



689. Finally, glue part #500 into position. You can use lengths of brass wore to ensure all the holes line up throughout.

694. Now glue the remaining strip into place after painting black. You can now paint the pillars also.



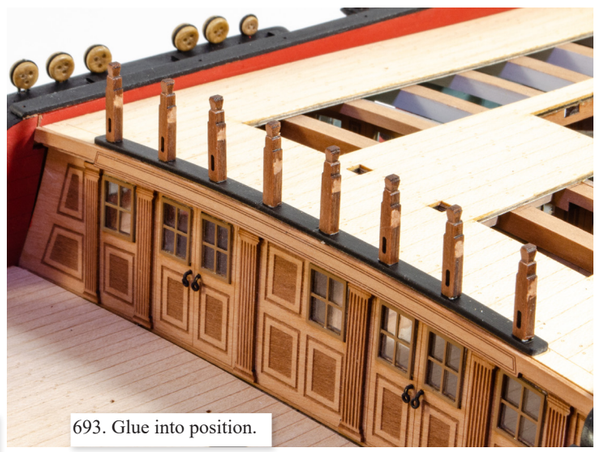
690. From the 1mm wood sheet, remove both parts #300.

691. Paint one part in black and glue into position as shown.

695. From the 3mm wood sheet, remove parts #111 and #112.

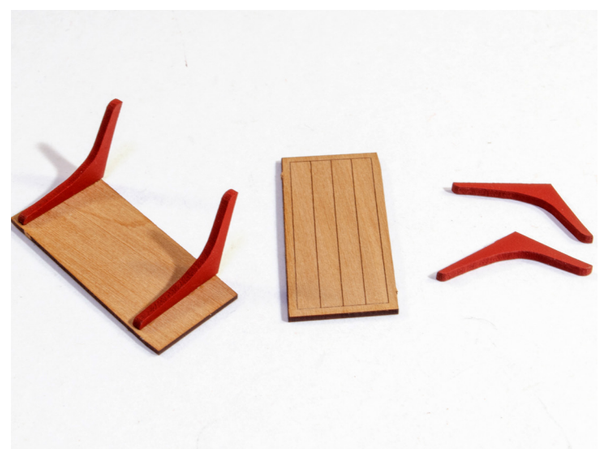
696. Paint and glue into place as seen here and on your plans. You will need to bevel the inner edge to match the inner bulwark angle.

692. From the 2mm wood sheet, remove all parts #115. Again, note that each has a letter assigned to it, denoting its location.



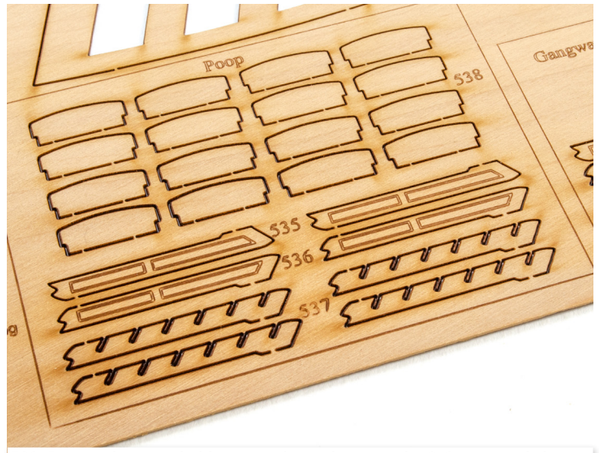
693. Glue into position.

697. From the 1mm wood sheet, remove parts #298 and #299. From the 1.5mm wood sheet, remove parts #182.



698. Paint the latter parts in red and glue to the underside of the gangway parts as shown here. You can reference the spacings on the plans.

699. Glue the assemblies as shown here, removing any paint from contact surfaces.

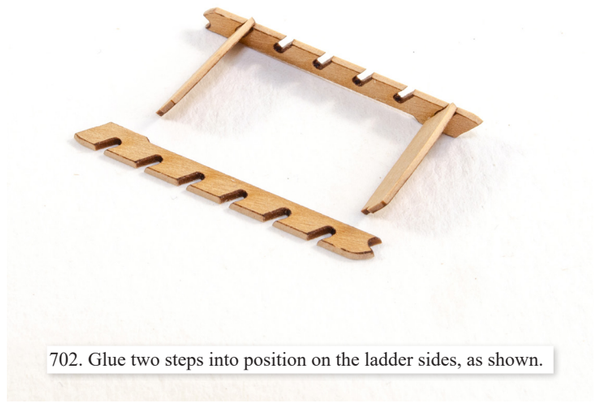


700. Locate the poop ladder parts shown here, on the 0.6mm wood sheet.

705. Finally, glue the engraved sides into position. You now have two sets of ladders.

706. The ladders can now be glued into place on each gangway.

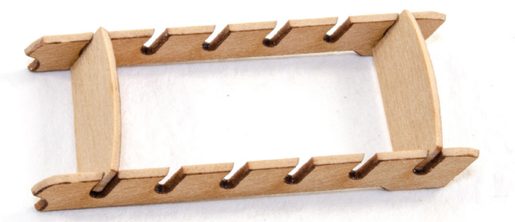
701. Remove parts #537 and parts #538.



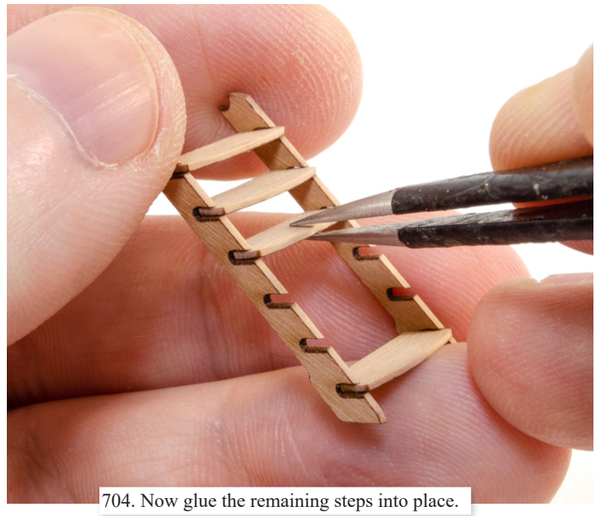
702. Glue two steps into position on the ladder sides, as shown.

707. From the 2mm wood sheet, remove both parts #121. From the 0.6mm wood sheet, remove both parts #497.

708. Glue parts #121 into position on each gangway.

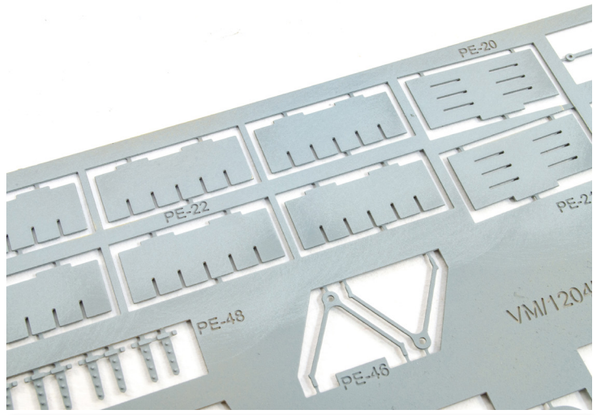


703. Leave the assembly to dry.

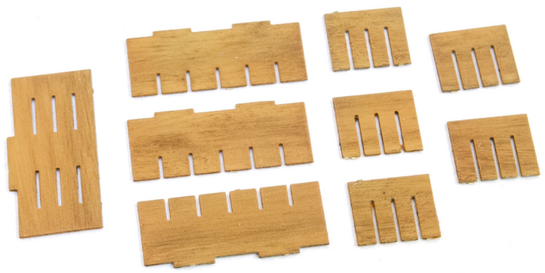


704. Now glue the remaining steps into place.

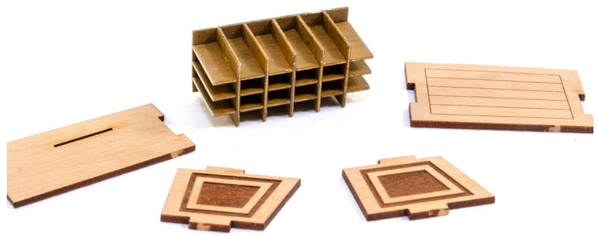
709. Now glue parts #497 on top of the previous parts, and against the poop deck trim.



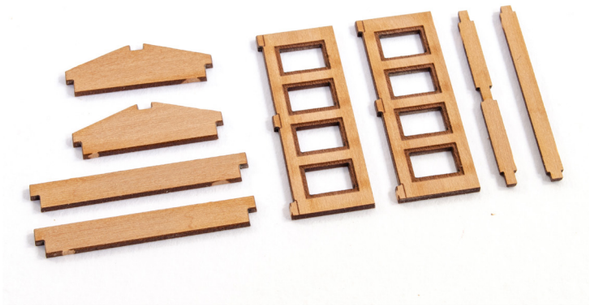
710. Locate the parts shown on the 0.4mm PE sheet and prime as shown.



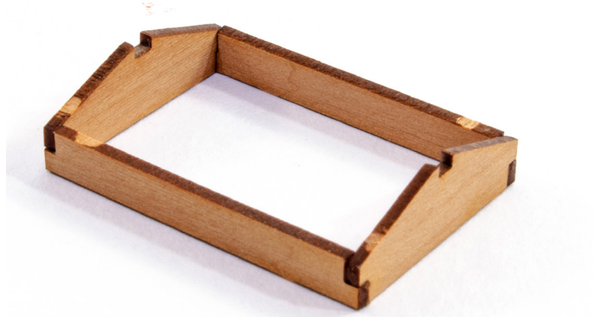
711. Paint the parts to represent wood. Use any method you wish for this. We used oil paints over an acrylic base colour.



712. Assemble the PE as shown. From the 1mm wood sheet, remove parts #296 and one part #295. From the same sheet, also remove parts #292 and #293.



716. We can now assemble the skylight. From the 1mm wood sheet, remove parts #423, #419, #420, #421, and #422.



717. Start your skylight by gluing the side panels to the end panels.

713. Assemble as shown here.

714. Make sure everything is test fitted to ensure a complete box assembly as shown. This is the left flag locker. Use the remaining parts to assemble the right flag locker.

718. Now glue part #422 across the assembly.

719. Glue part #421 atop of the previous cross beam.

715. Glue the flag lockers into place as shown here. You'll also note that all the cleats have been fitted at this stage, as well as the main brace blocks #104, from the 4mm wood sheet.

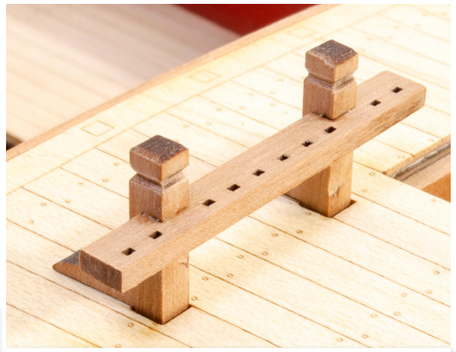
720. Glue the skylight roof panels into position.

721. Remove the hinges PE-87 from the 0.25mm PE sheet and glue as shown.

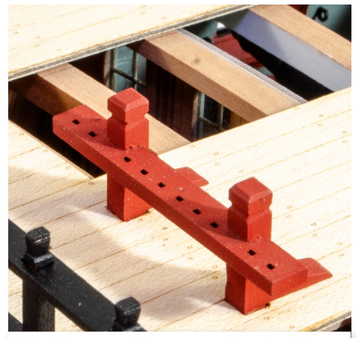
722. Now glue parts #PE-45 into place, from the 0.4mm PE sheet. We do supply acetate parts for this which are located on the PETG sheet. First paint the assembly in red and install the windowpanes into the underside of the skylight, trimming each to size as you go.

723. The skylight can now be fitted as shown.

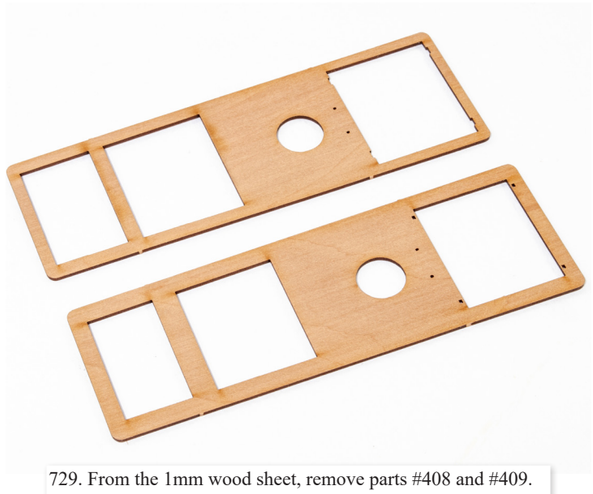
724. From the 2mm wood sheet, remove part #123. From the 3mm wood sheet, remove parts #109.



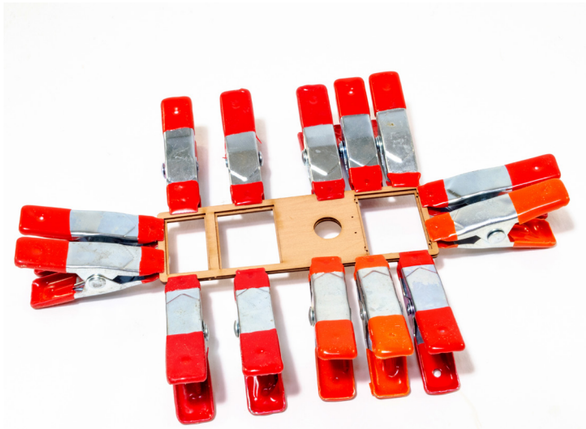
725. Assemble the parts to each other while dry fitting to the poop deck. When dry, paint the assembly in red.



726. The assembly can now be glued into place.

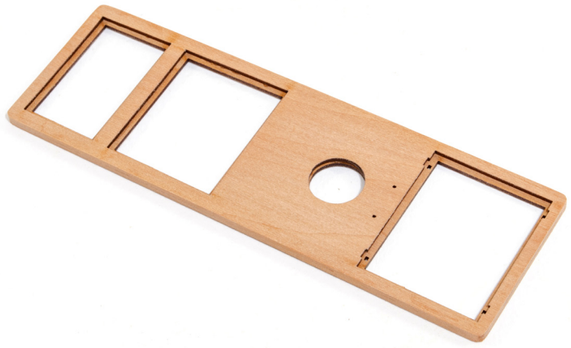


729. From the 1mm wood sheet, remove parts #408 and #409.

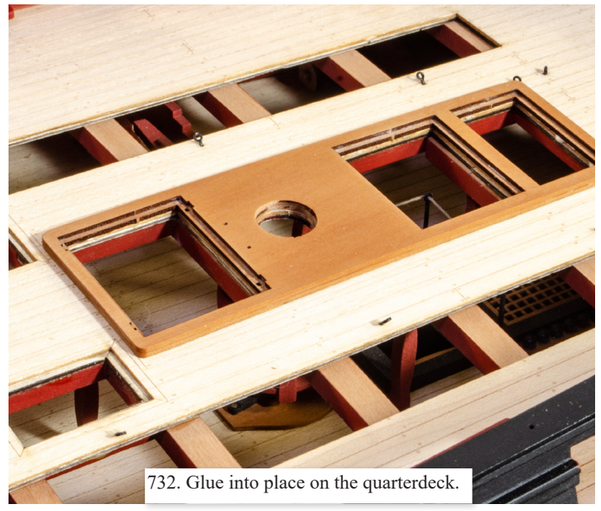


730. Glue and clamp the parts together.

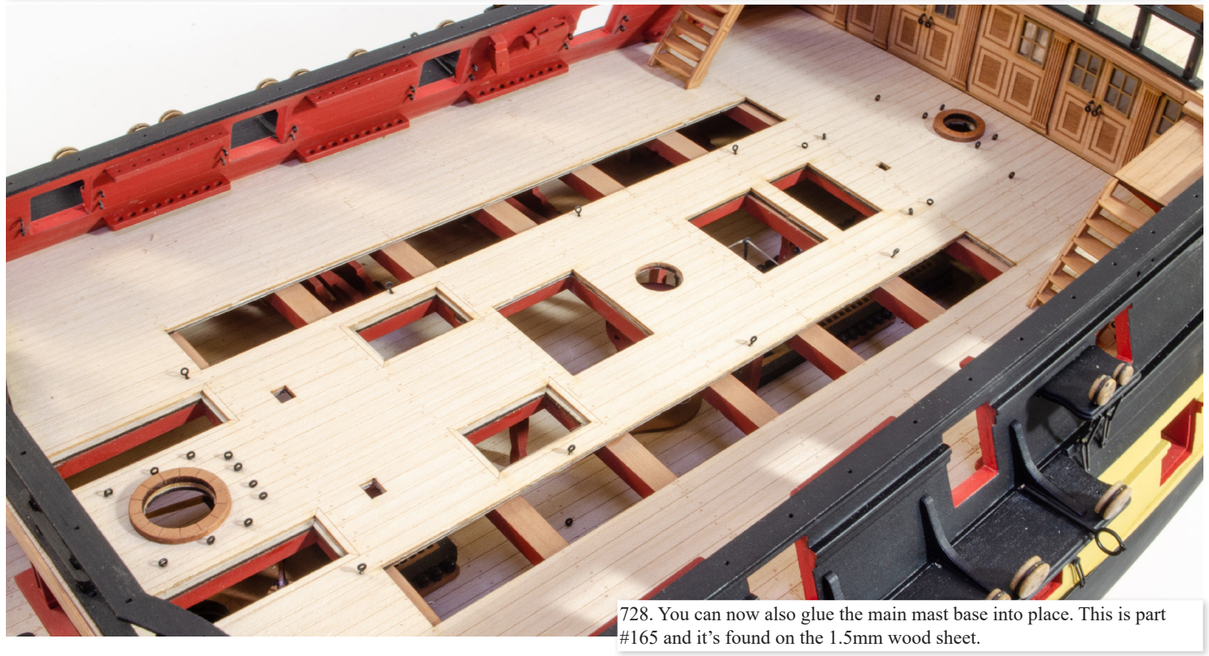
727. Add the various eyebolts etc, to complete this area. You can also add the eyebolts to the other locations across all the deck areas. Glue into place the 1.5mm mast base part #166 into place for the mizzen mast.



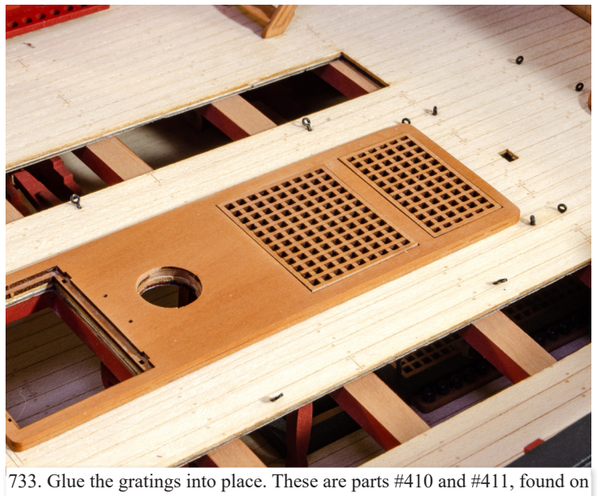
731. Clean up the part edges and apply clear varnish.



732. Glue into place on the quarterdeck.



728. You can now also glue the main mast base into place. This is part #165 and it's found on the 1.5mm wood sheet.

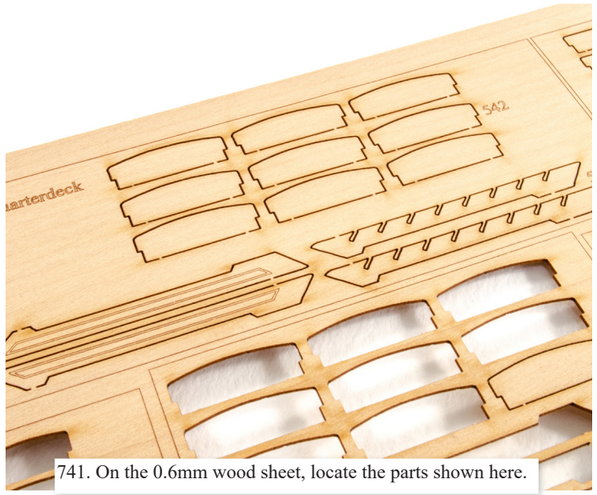


733. Glue the gratings into place. These are parts #410 and #411, found on the same 1mm wood sheet.

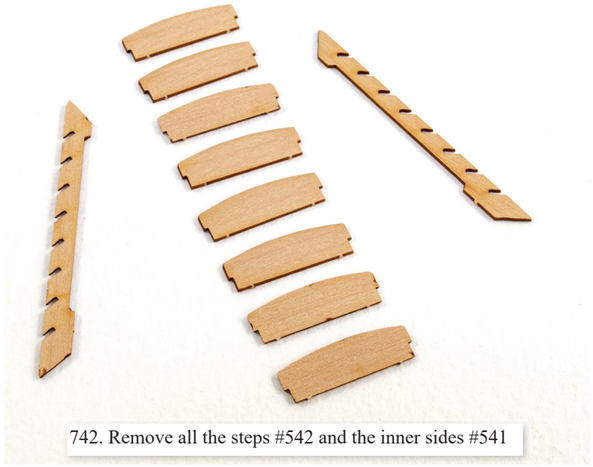
734. Indy has two capstans, and now we make the upper one. From the 2mm wood sheet, remove parts #120 from the 2mm wood sheet. From the 1mm wood sheet, remove parts #281 and #282.

735. Assemble as shown.

736. You can use a section of dowel to align the parts. This is only dry-fitted. From the 1.5mm wood sheet, remove part #162.

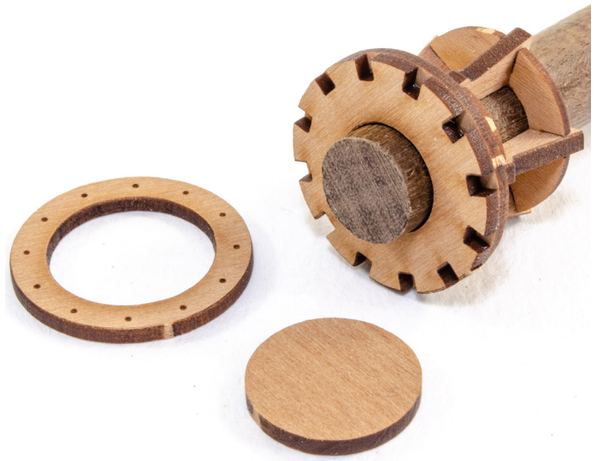


741. On the 0.6mm wood sheet, locate the parts shown here.

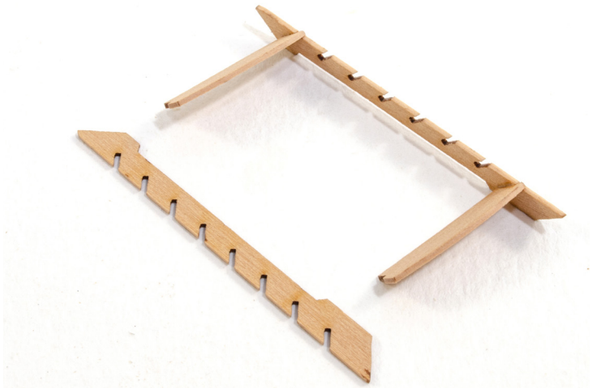


742. Remove all the steps #542 and the inner sides #541

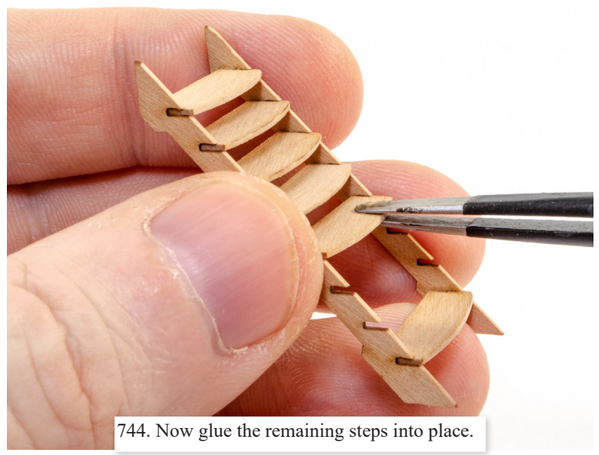
737. Glue that part into place as shown. From the 1.5mm wood sheet, now remove part #161.



738. Glue into place as shown. From the same wood sheet, remove part #163. From the 2mm wood sheet, remove part #199.



743. Insert two of the steps into the ladder sides as shown. Leave to dry.



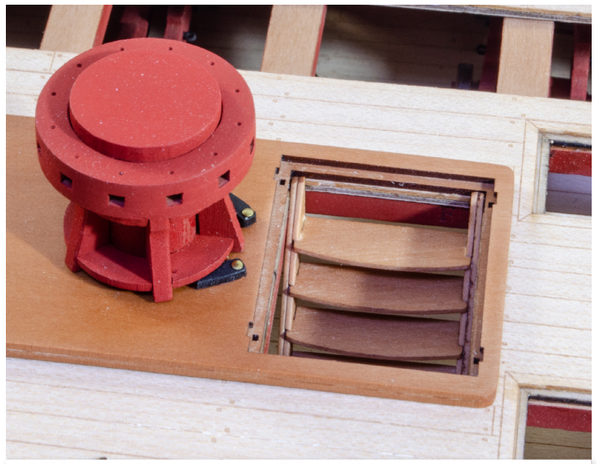
744. Now glue the remaining steps into place.

739. Use the disc to help centralise part #163 into place.

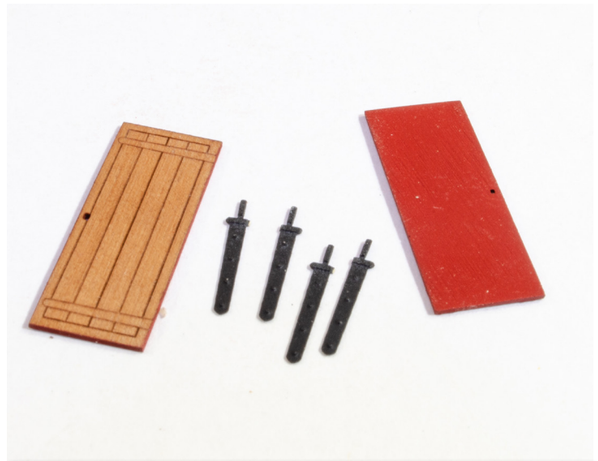
740. Cut the dowel so that when inserted through the quarterdeck, it protrudes enough so that the disc will sit like this, above the height of the capstan. Remove all the capstan parts and paint red.

745. Take the engraved outer parts and glue into place.

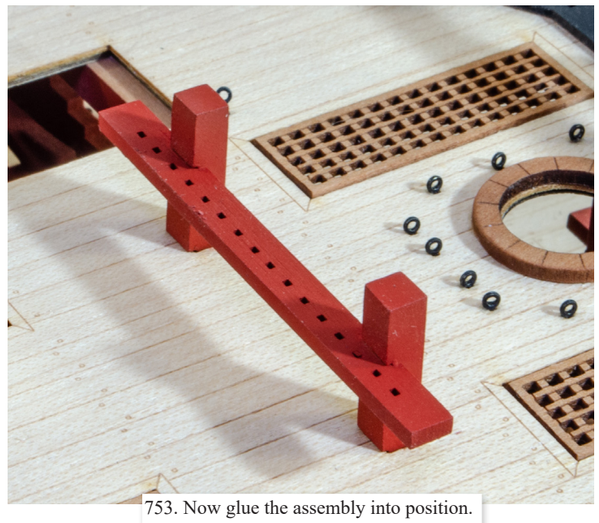
746. Your finished ladder will look like this.



747. Glue the ladder into place as shown, followed by the capstan and also the pawls #283 from the 1mm wood sheet.

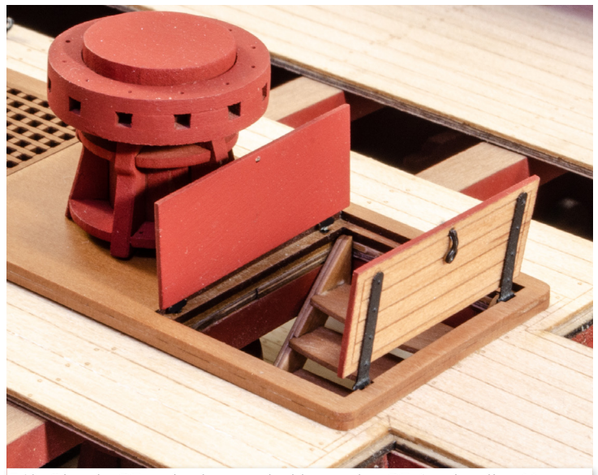


748. From the 0.6mm wood sheet, remove parts #498. Paint the underside in red. From the 0.4mm PE sheet, remove parts #PE-49. Paint those parts black.

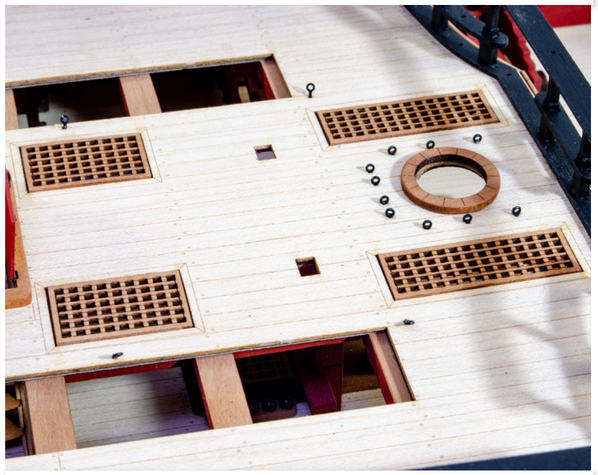


753. Now glue the assembly into position.

754. The deck carronades differ in construction from those previously fitted, as the gun beds aren't designed to slide. From the 2m wood sheet, remove parts #157, #156, #155, #154, and #153. Also locate the 3D-printed wheel set, brass wire and carronade barrel.

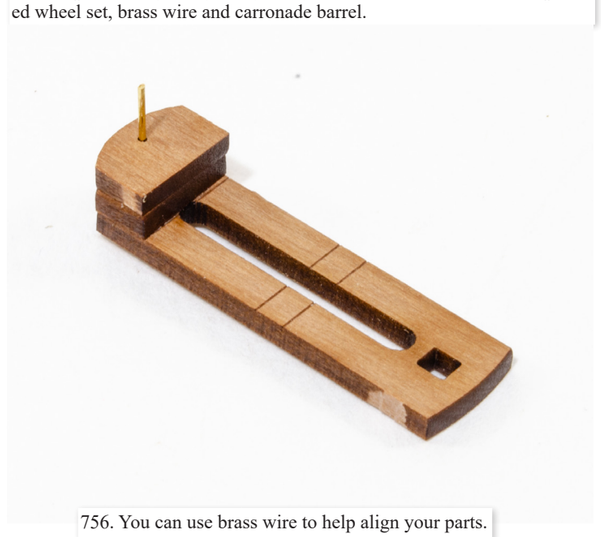


749. Glue the PE to the doors and add to eyelets PE-1 as handles. Now glue the doors into place as shown.

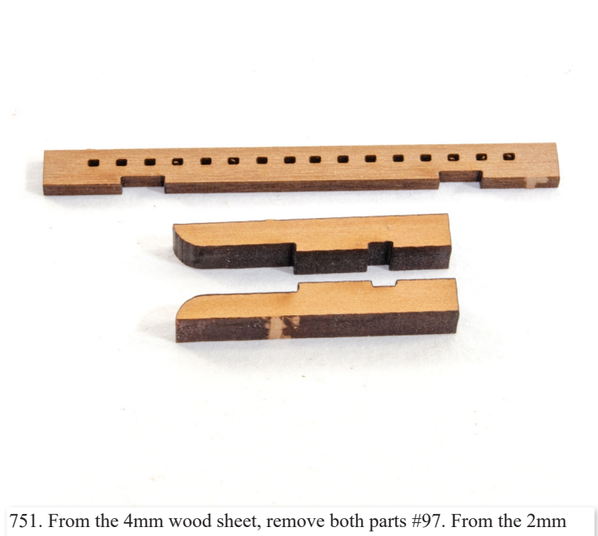


750. From the 1mm wood sheet, remove gratings #444 and #445. Glue into place as shown.

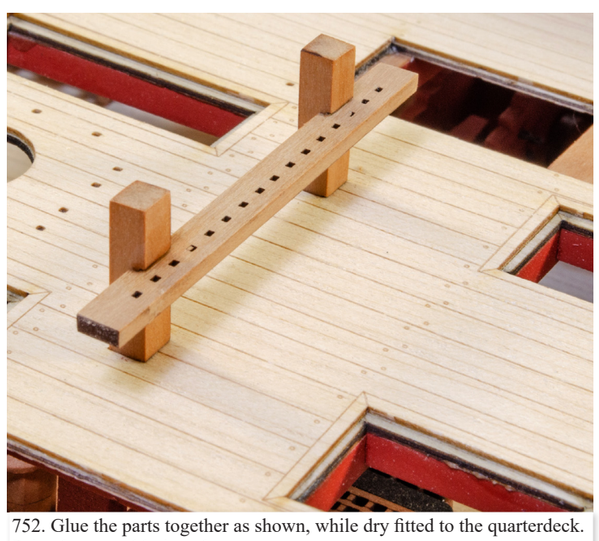
755. Glue the parts together as shown here.



756. You can use brass wire to help align your parts.



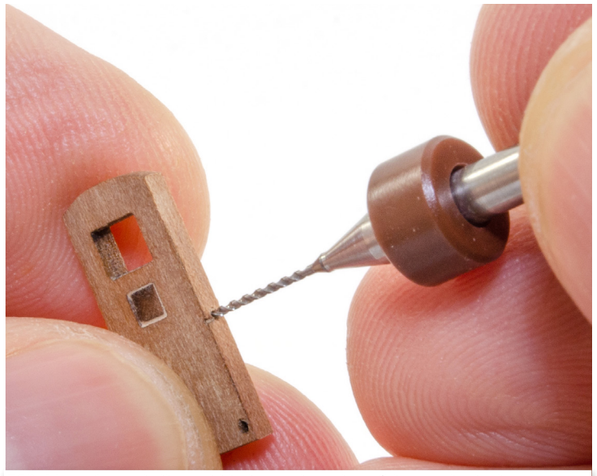
751. From the 4mm wood sheet, remove both parts #97. From the 2mm wood sheet, remove part #125.



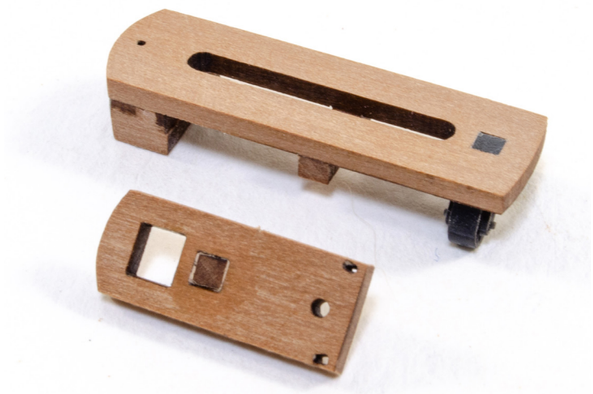
752. Glue the parts together as shown, while dry fitted to the quarterdeck. Paint the assembly in red.

757. Assemble the gun bed as shown.

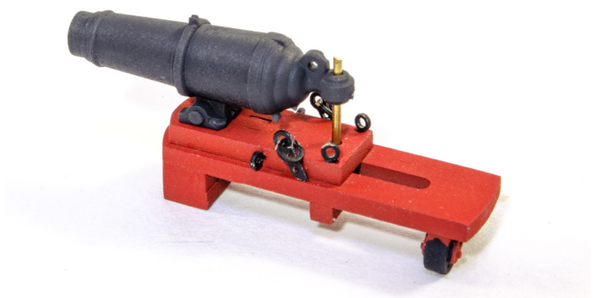
758. Fit the carriage wheels to the carriages as shown, making sure you sand them flush on the top side.



759. Use a 1mm drill to add holes to the sides of the gun bed where you see the engraved marks.



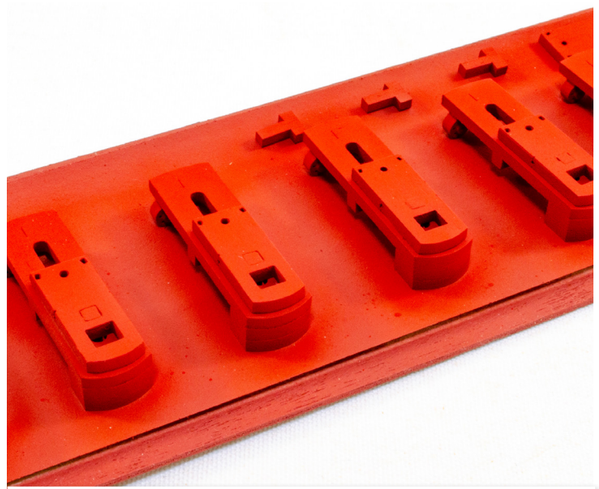
760. Your two carronade assemblies will look like this.



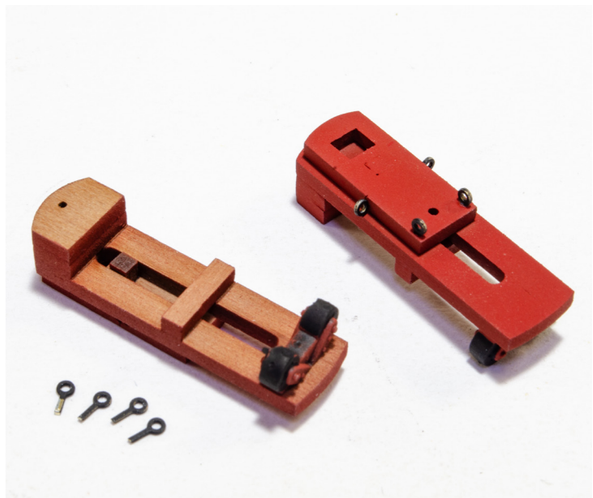
765. Paint the carronade barrel in black (our Smoke Black colour is perfect for this), and glue to the gun to the base. Take a length of 0.7mm brass rod and glue as shown. You may need to very slightly open up the gun hole at the rear. Paint the rod black.

766. Your finished army of carronades, ready for installation.

761. You can now glue the parts together, leaving a slight step at the front of the carriage, as seen here.



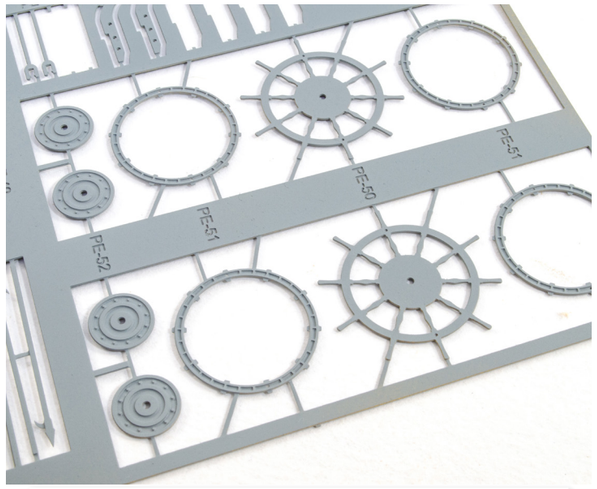
762. Paint all of the carronade bases in the same red you used for bulwarks etc.



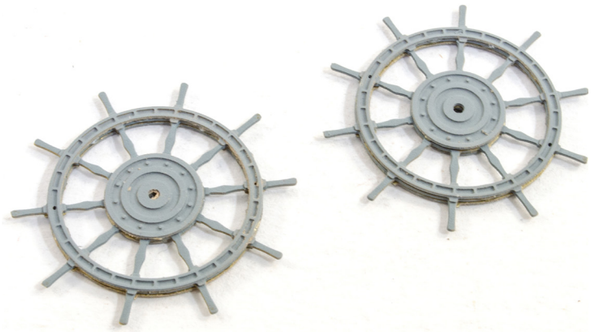
763. Paint the PE-1 eyebolts in black and add them to each gun base.

764. Now assemble the parts PE-24 as shown and attach to the gun bases. All of this is the same as for the carronades you built for the cabin area.

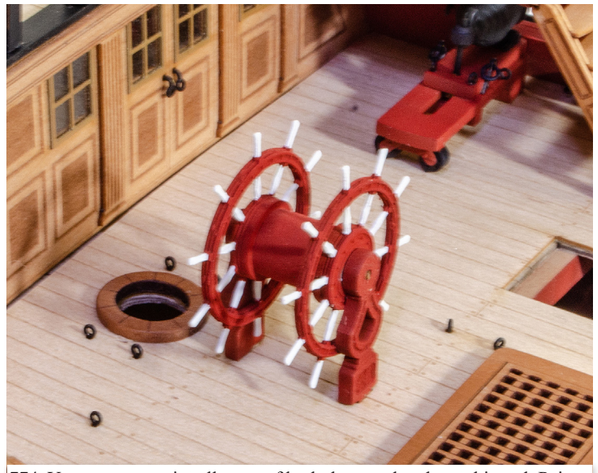
767. Take ten of the completed carronades and glue into position at the gun ports.



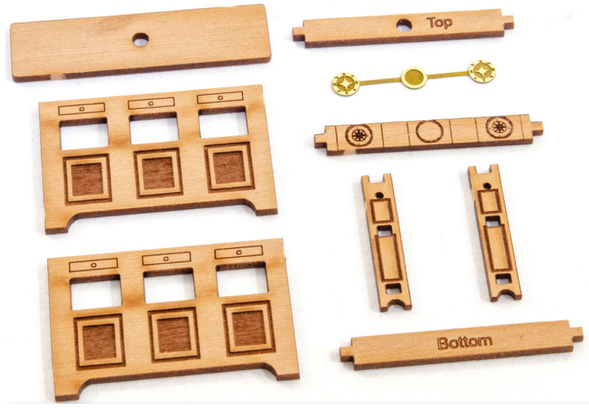
768. Locate these parts on the 0.4mm wood sheet and prime them.



769. Assemble the parts as shown, removing any primer from the contact surfaces.

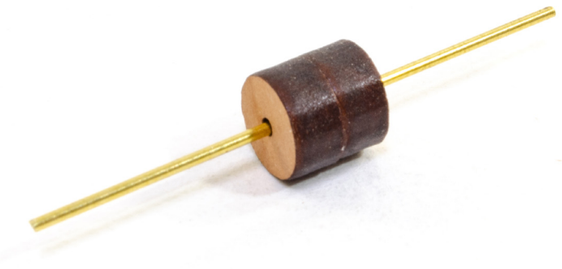


774. You can now paint all parts of both the wood and metal in red. Paint the spokes in white. Slide the wooden parts onto either side of the wheel and cut the brass wire flush. Install the wheel to the deck with the tabbed part being at the front.



775. We will now assemble the binnacle. From the 1mm wood sheet, remove parts #284, #285, #286, #287, #288, and #289. From the 0.25mm PE sheet, remove part PE-84.

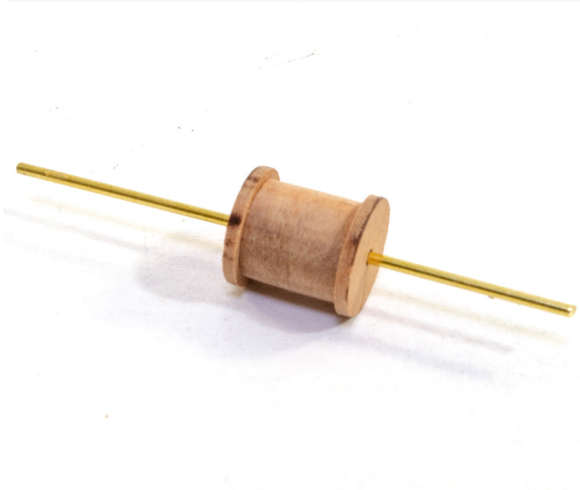
770. On the 2mm wood sheet, locate parts #116 and #117. Remove both parts #98 from the 4mm wood sheet. From the 1mm wood sheet, remove both parts #305.



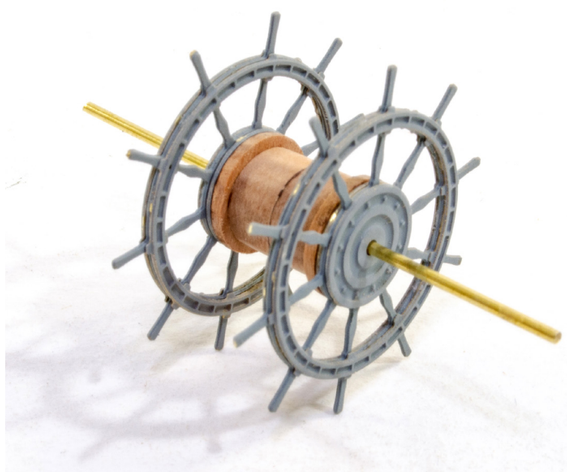
771. Glue the two thicker drum parts together using brass wire as a guide.

776. Glue the PE part into place on the engraved marks on part #285. You can remove the links between the compass parts after gluing into place. This is handy to get the correct spacings.

777. Glue this assembly into the middle slot on the binnacle side, noting that the scalloped end of the side part is the bottom on the binnacle. Now glue the ‘Bottom’ part into place in the slot adjacent to the scalloped end of the side part.

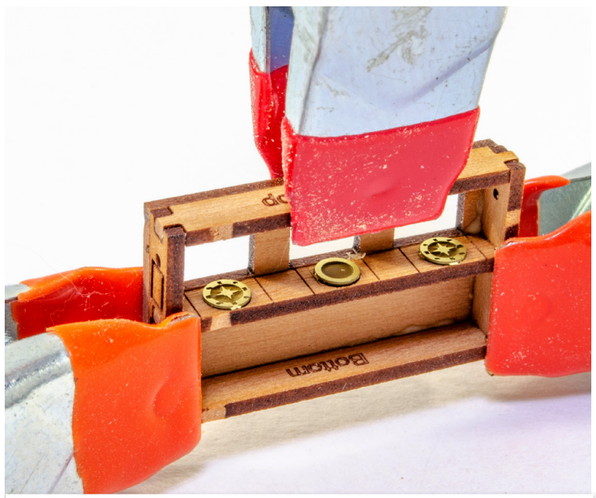


772. Sand the glued drum and then add the thinner discs to each side.



773. Glue the wheel assemblies to either side of the drum.

778. Glue the opposite side of the binnacle into place and then glue the ‘Top’ part across the top of the binnacle.

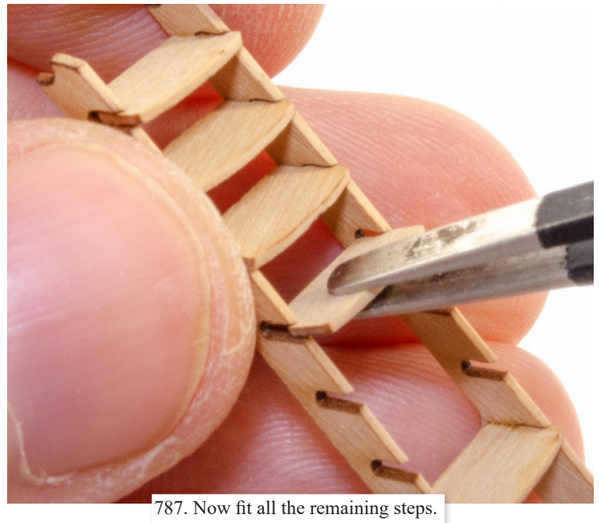


779. Take one of the front parts and glue/clamp into place. Make sure that it’s flush all the way around.

780. Now glue/clamp the opposite face into position.

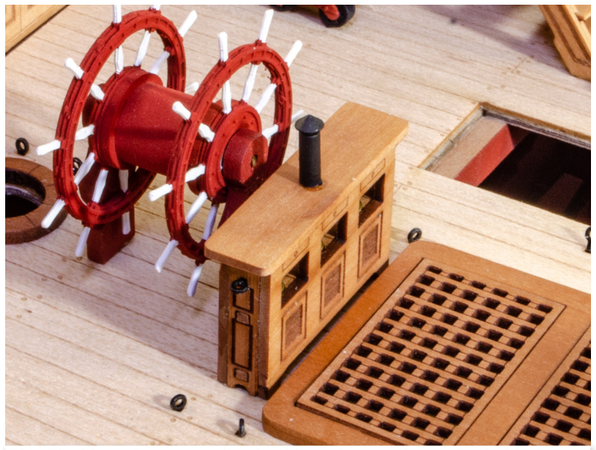
781. The roof of the binnacle will now be fitted. You will also need the small brass chimney for this. Use the chimney to help centralise the roof while you glue it into place.

786. Glue a step into the upper and lower slot on one of the sides. When dry, glue the other side part into place.



787. Now fit all the remaining steps.

782. When set, glue the chimney itself and then paint black. An eyebolt PE-1 can then be fitted into either side of the binnacle.

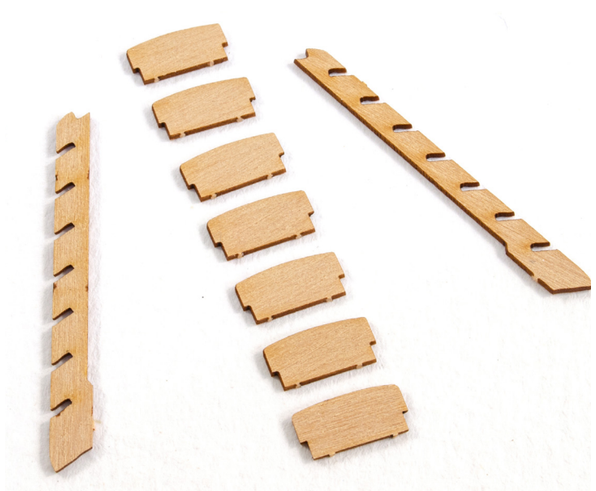


783. The binnacle can now be glued into place as shown. Lash this down to the adjacent eyebolts using either 0.5mm natural thread (not shown here).

788. Glue the engraved outer facings to the ladders.

789. The finished assemblies will look like this.

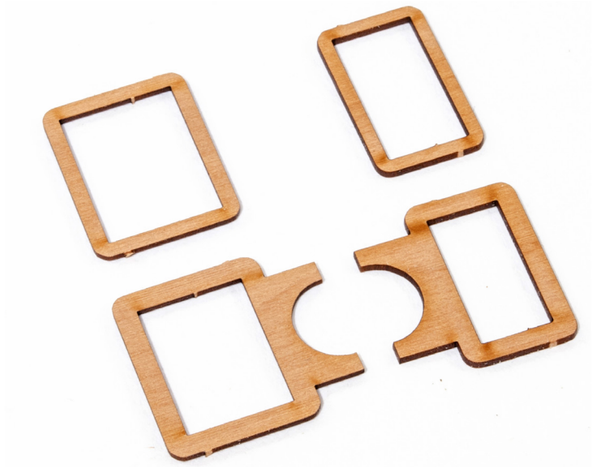
784. Locate the parts for the two gangway ladders, shown here.



785. Remove the inner side parts and all of the steps.

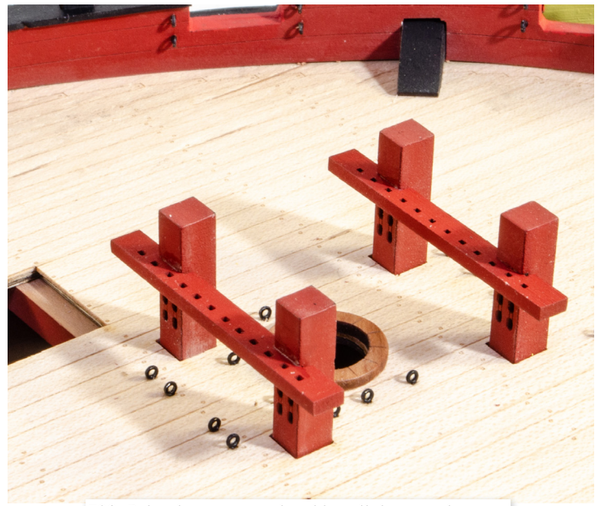
790. Using your plans as reference, glue the ladders into place as shown.

791. Glue the stove funnel into place through the deck, using CA glue. The funnel will point aft.

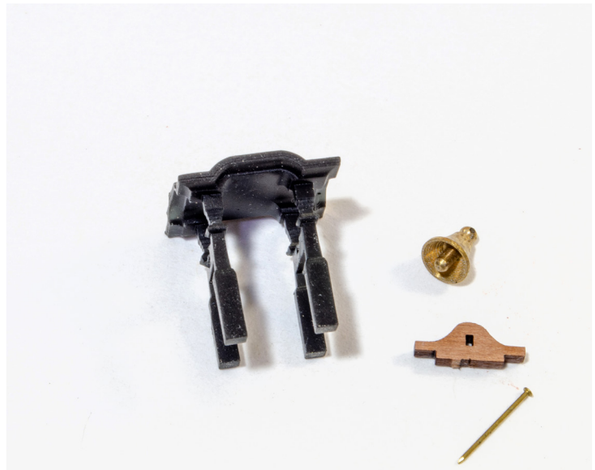


792. From the 1mm wood sheet, remove parts #412, #413, #414, and #415.

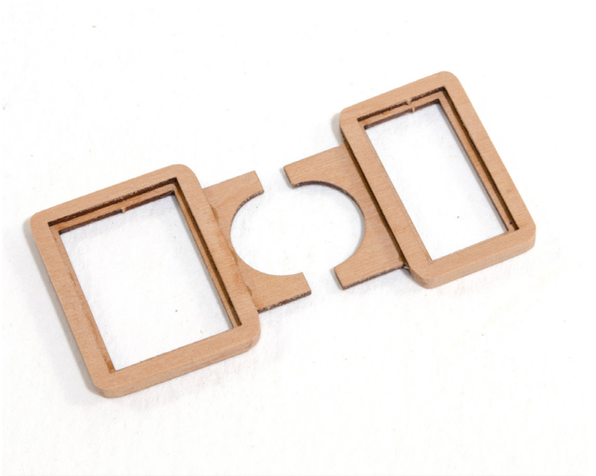
793. Glue and clamp the pairs together as shown.



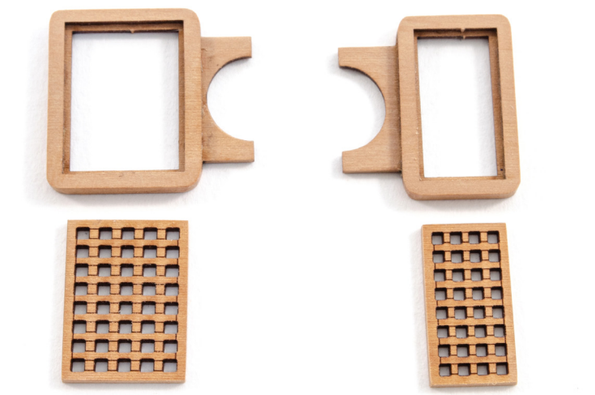
798. Paint these parts red and install them as shown.



799. Locate the 3D-printed Belfry part F-7. You will also need the bell beam #118 from the 2mm wood sheet. Also locate the ship's bell F-16 and a single brass pin.



794. Remove and laser char from the outer edges of the assemblies.

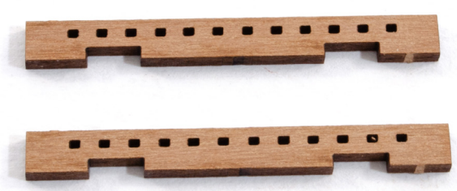


795. From the same wood sheet, remove gratings #416 and #417.

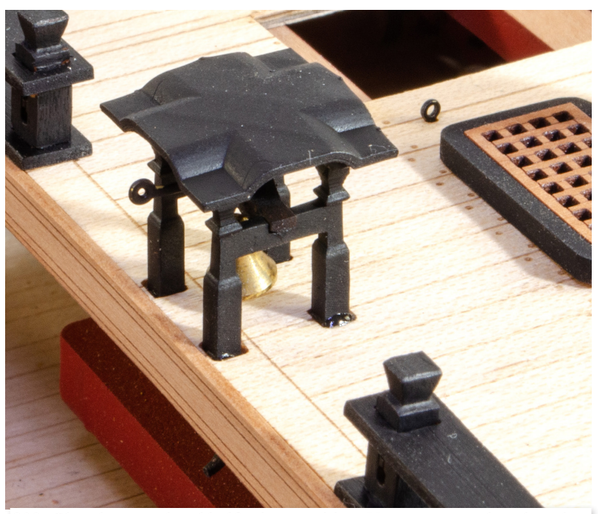
800. Glue the bell beam into the belfry. There are slots to locate this within the belfry. Paint the belfry and beam in black. Push the brass pin through the bell and bend it 90 degrees. Cut the pin short, leaving a few millimetres. From the 0.6mm PE sheet, locate the bell crank PE-71.

801. Drill a 0.5mm hole in the underside of the bell beam and insert the bell/pin into it. Now glue the bell crank into the hill on the side of the bell beam. Paint this black.

796. Paint the frames in black and glue the gratings into them. The finished assemblies can now be fitted to the deck, on either side of the stove funnel.



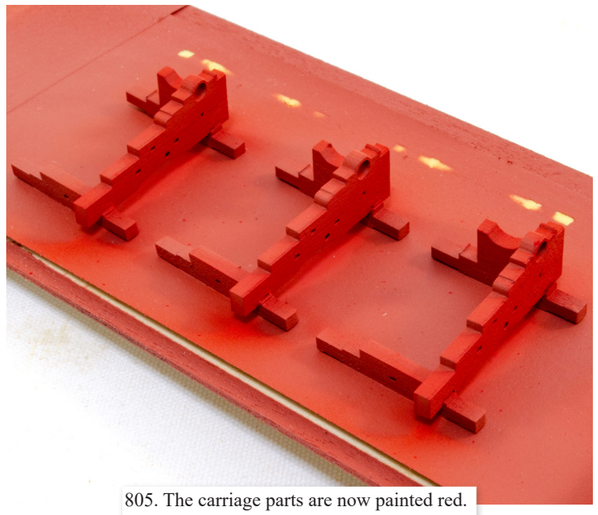
797. From the 2mm wood sheet, remove both parts #124.



802. Glue the completed belfry into position. You can use a short length of 0.25mm rope to dangle from the end of the belfry (not shown here).

803. The last guns to build for Indefatigable, are the two 12-pounders. From the 2mm wood sheet, remove all the parts associated with this. All parts are grouped together on the sheet so are easy to find. Assemble these in the same way that you did for the main guns.

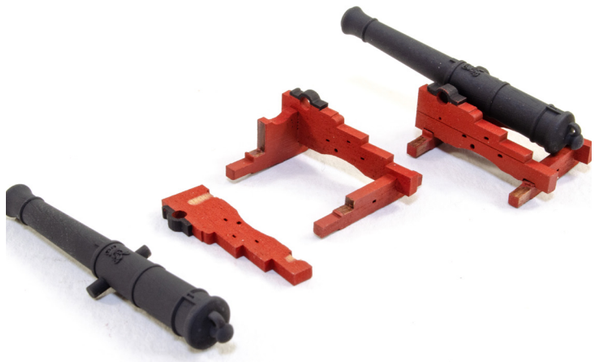
804. Also assemble the chocks.



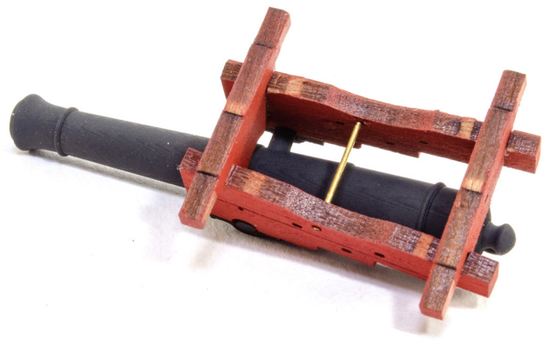
805. The carriage parts are now painted red.

810. Glue the wheels into place on the carriages.

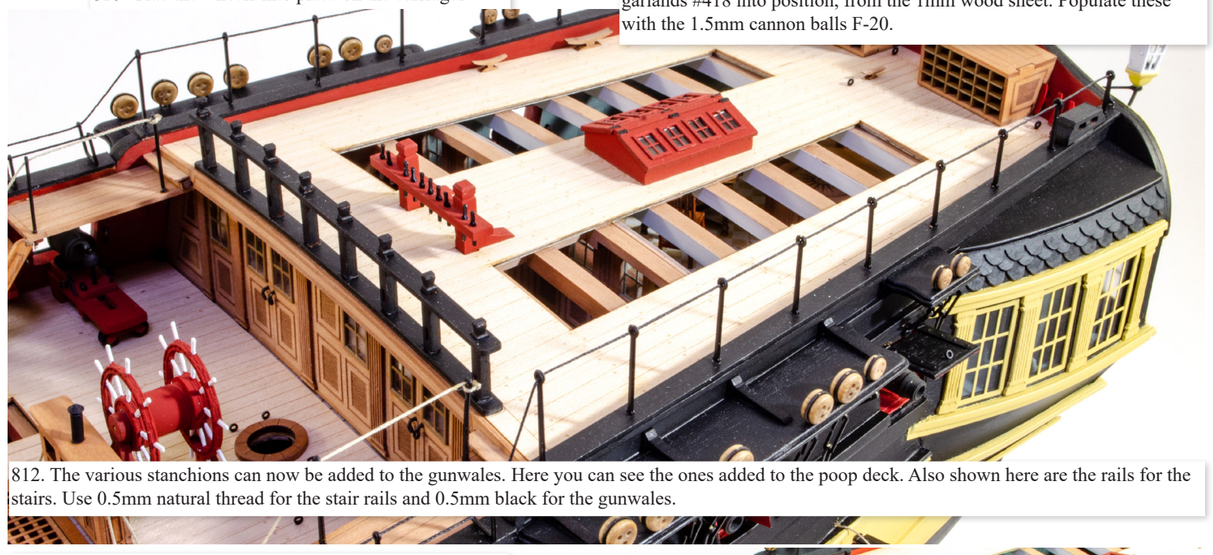
811. Finally, fit the guns and the remaining carronades into position. Note that the forward gun ports will remain unoccupied. You can now also shot garlands #418 into position, from the 1mm wood sheet. Populate these with the 1.5mm cannon balls F-20.



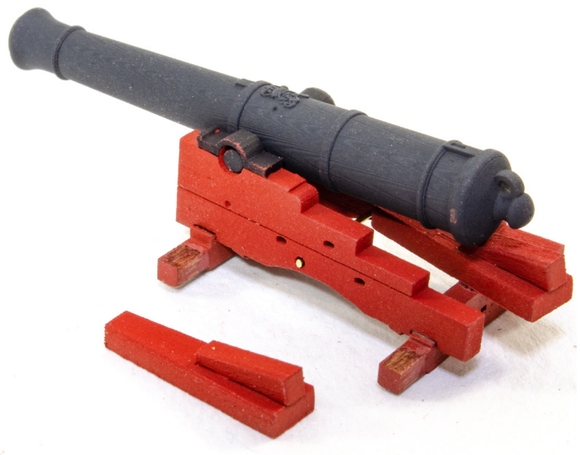
806. Paint the carriage cap squares in black and then slot the painted barrel into the carriage before fitting the opposite side.



807. Use a length of 0.8mm brass rod so add this beam. Paint the rod in black.



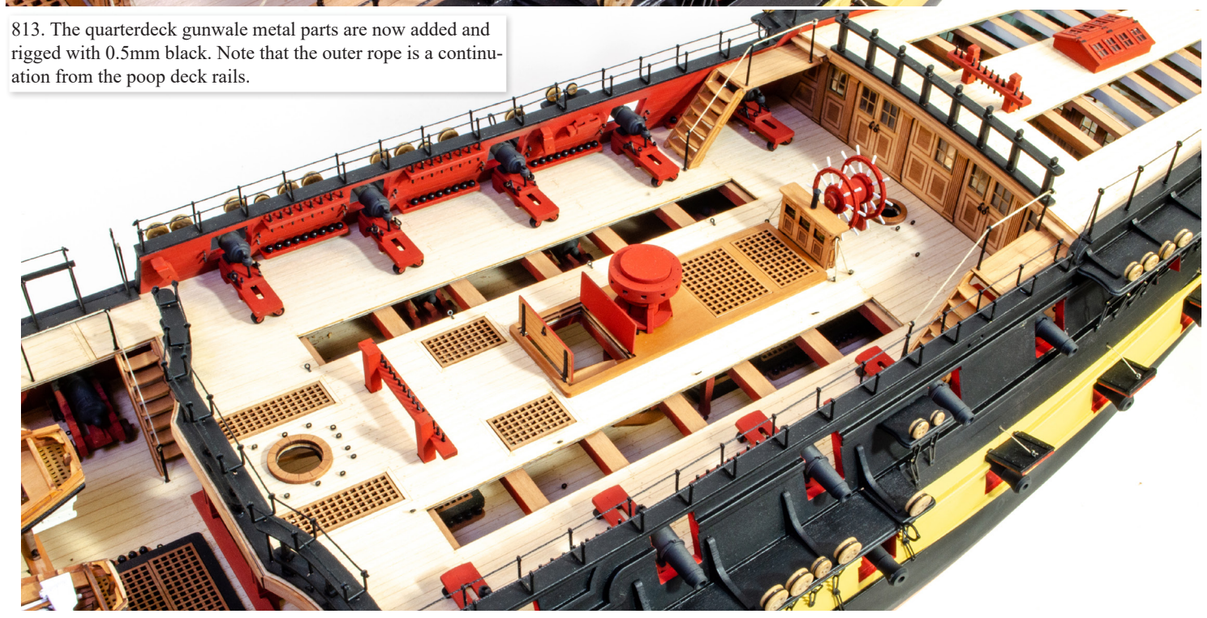
812. The various stanchions can now be added to the gunwales. Here you can see the ones added to the poop deck. Also shown here are the rails for the stairs. Use 0.5mm natural thread for the stair rails and 0.5mm black for the gunwales.



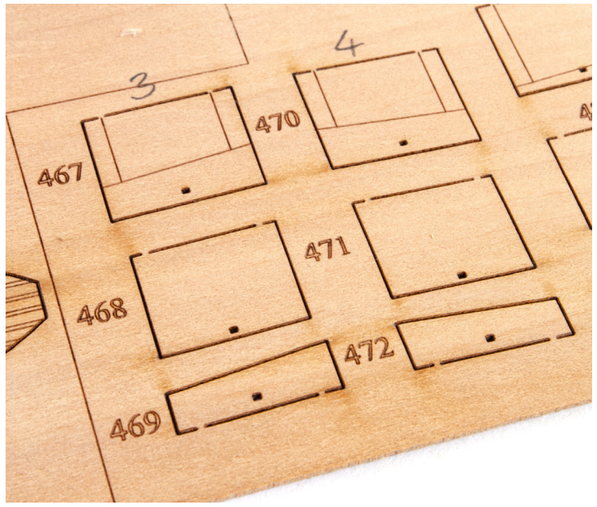
808. The chock can be fitted later when you have the guns installed to the deck. The guns should be level when installed.

809. Paint eyebolts PE-1 in black and then fit to the gun carriages.

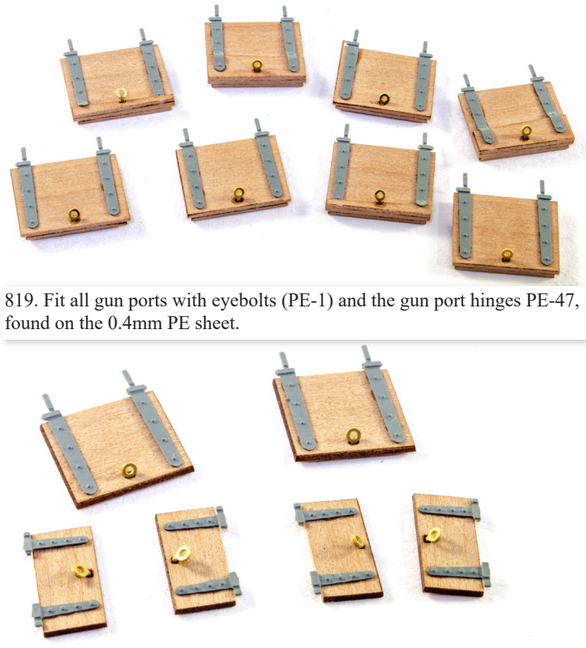
813. The quarterdeck gunwale metal parts are now added and rigged with 0.5mm black. Note that the outer rope is a continuation from the poop deck rails.



814. Here you see the rails alongside each of the waist gangways. The outer ones are rigged with 0.5mm black and a 188mm strip of 1mm x 2mm wood is used on the inboard area. 0.5mm natural rope is rigged along the inner stanchions and down by the side of the gangway steps.

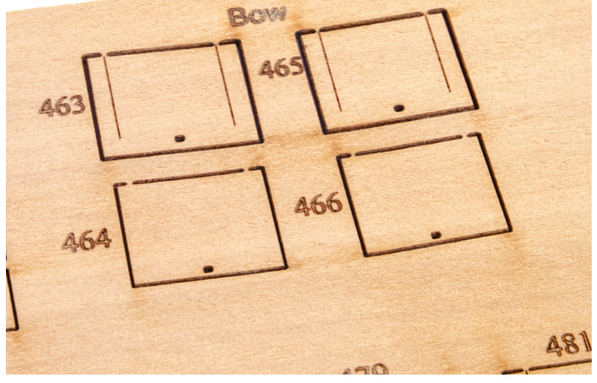


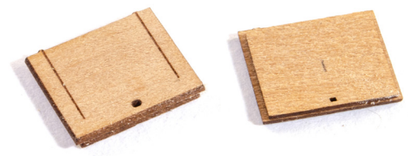
817. Some ports, such as this, also include an extra outer part which will match the wale into which the gun port is fitted. These are self-explanatory.



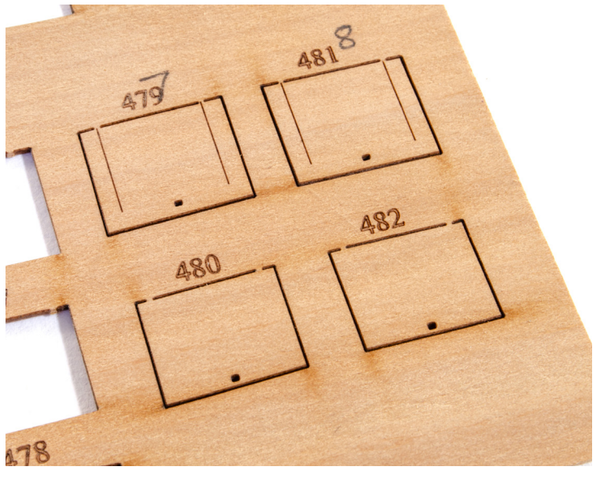
819. Fit all gun ports with eyebolts (PE-1) and the gun port hinges PE-47, found on the 0.4mm PE sheet.

818. These are the final assembled ports for the forward port which recesses into the wale.

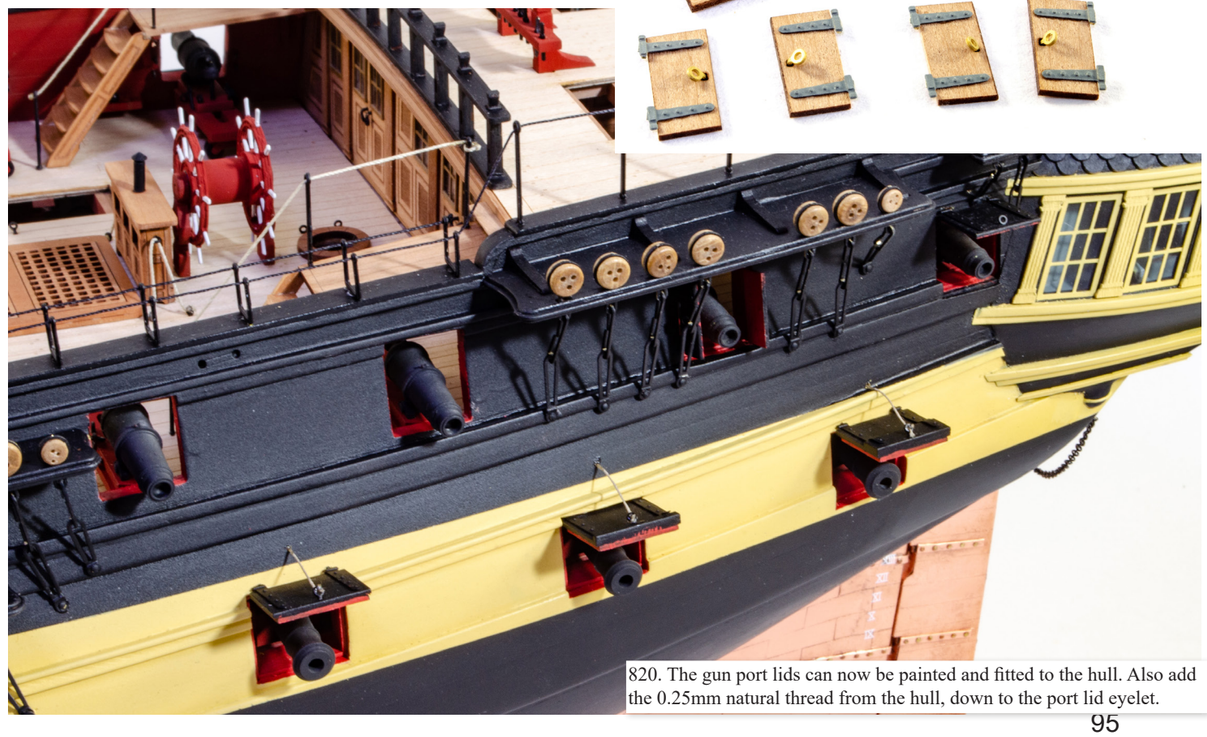




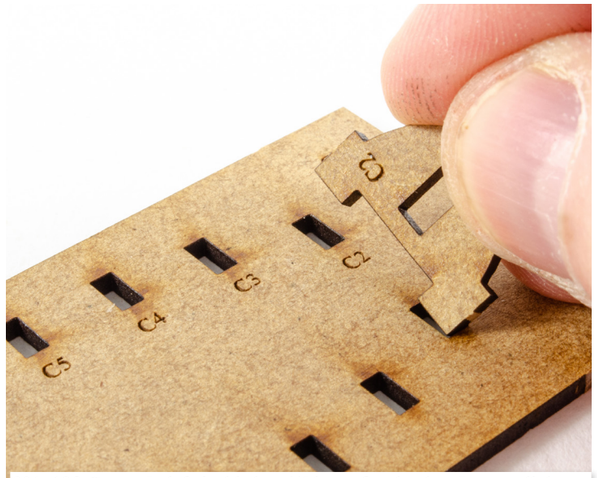
815. We will now make the gun port lids. Here you see the parts for the bow. Assemble as shown.



816. Work your way through the gun port assemblies, making sure you clearly identify them as they are individual to each gun port.



820. The gun port lids can now be painted and fitted to the hull. Also add the 0.25mm natural thread from the hull, down to the port lid eyelet.

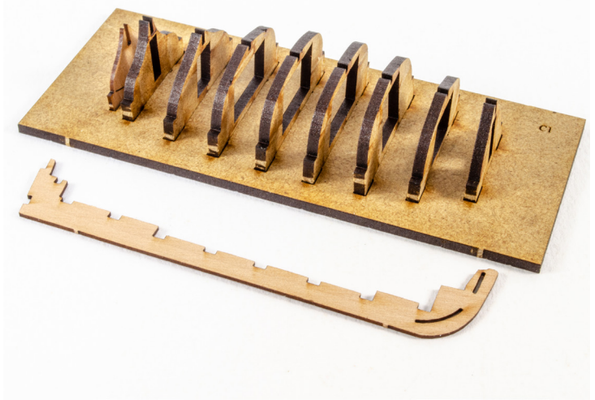


821. 18ft Cutter: Indefatigable has 4/5 boats fitted to her. Locate all the hull frame parts and jig on the 2mm MDF sheet. All of the parts are grouped together. Remove all the parts and dry fit the bulkheads into their correct base slots.

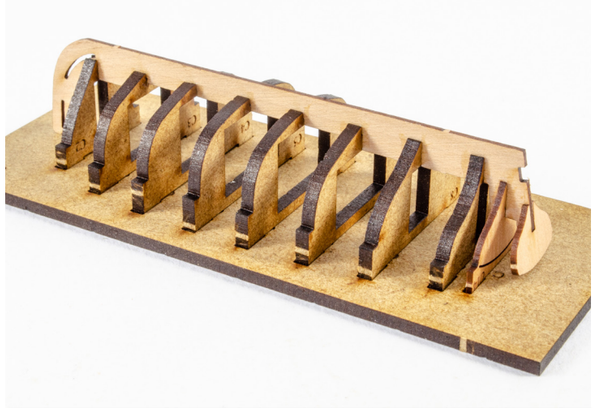
822. C14 is the final bulkhead and is located on the 1mm wood sheet, along with a grouped set of parts for this same boat. Put those parts to one side as we'll shortly need them.

827. Sand the hull so that the plank will have a nice contact area across the whole hull.

828. Glue the first planks from the 0.6mm wood sheet. These fit onto the shoulder of the jib bulkheads. Note the 0.6mm wood sheet has more part for this boat, grouped together.



823. Locate the keel for the boat, on that parts sheet.



824. Glue the keel into the slots in each bulkhead. When dry, glue bulkhead C15 into place, from the 1mm wood sheet.

829. Taper the planks as you install, and if they become awkward to plank, then work downwards from the keel.

830. The planked hull will look like this.

825. Now take the final parts, C11, from the MDF sheet and shape them like this.

826. Glue into place.

831. Slice away any protruding MDF as this will make it easier to sand the hull.

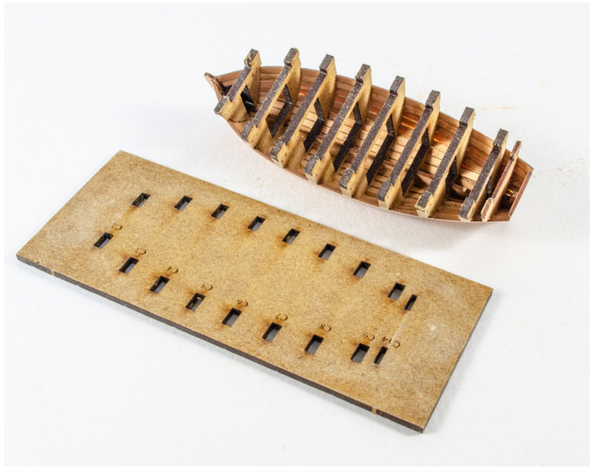
832. The jig will not look like this.

833. Sand the hull smooth.

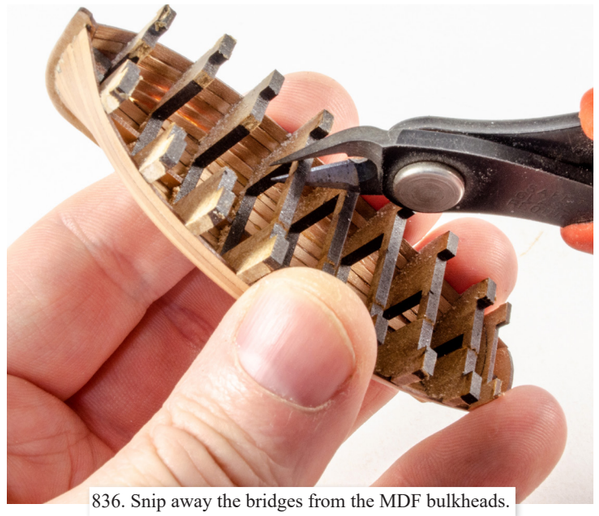
834. If you need to, add a little filler into any imperfections.

839. Now take the rib material for the boat, located on the 0.6mm wood sheet and glue them into place like this, approx. 5mm apart.

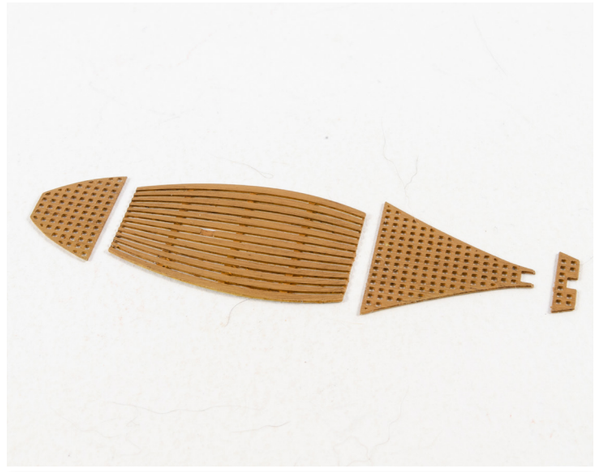
840. Now add the seat support strips, approx. 3mm down from the top edge of the bulwark.



835. Remove the boat from the jig. The base can be discarded.



836. Snip away the bridges from the MDF bulkheads.



841. Locate all the floor components from the 0.8mm wood sheet.

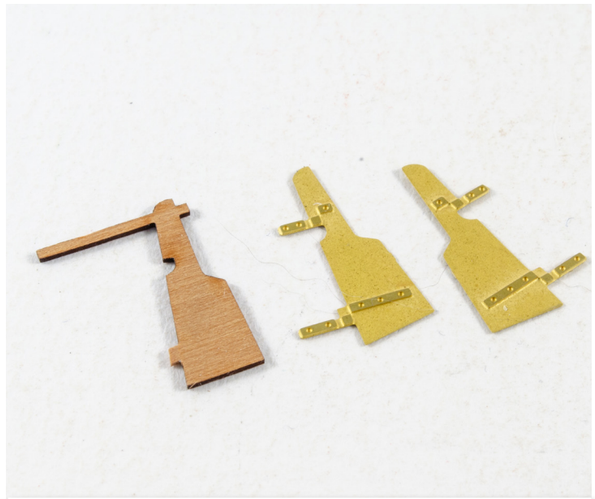
842. Glue into place and trim away any of the ribs that foul the floor sections.

837. Now twist away the MDF sides. A little MDF will still remain in the bottom of the boat, and we will need that soon.

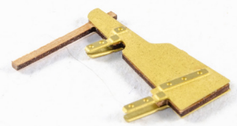
838. Remove the excess part at the top of C14.Remove any excess glue from inside the hull.

843. Fit the seating as shown, and the knees in the rear.

844. Paint the hull white up to two planks from the top. Paint a separate hull plank in black and glue this onto the second plank from top. Also bend and fit the mast support CPE-5, from the 0.4mm PE sheet. You can also fit the thwart knees C20 from the 0.6mm wood sheet.

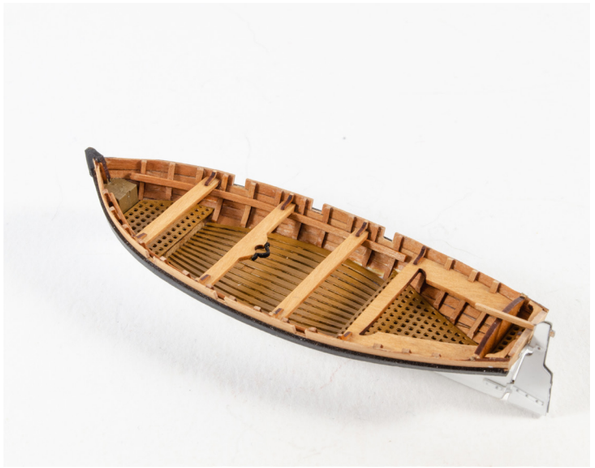


845. Remove part C22 from the 0.6mm wood sheet and the parts CPE-6 and CPE-7 from the 0.4mm PE sheet.



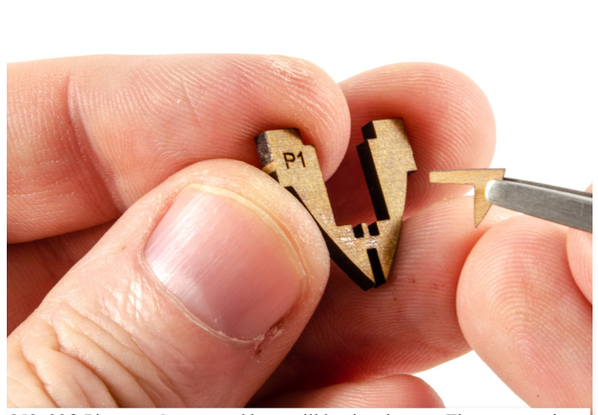
846. Glue together as shown.

851. This is how the boat will look with the rudder removed and stowed.



847. Now, the rudder can be fitted as shown here, or you can leave it off the hull and sit it inside the hull, stowed. This is how it would've been when sat in place on the Indy hull.

848. Locate the anchor parts CPE-8 and CPE-8a from the 0.4mm PE sheet. Glue together and paint black.



852. 32ft Pinnace: Our second boat will be the pinnace. The construction of all of these boats is very similar, and you will now be familiar with how the part are grouped on the wood sheets, so I will be briefer over the construction of the next boats.

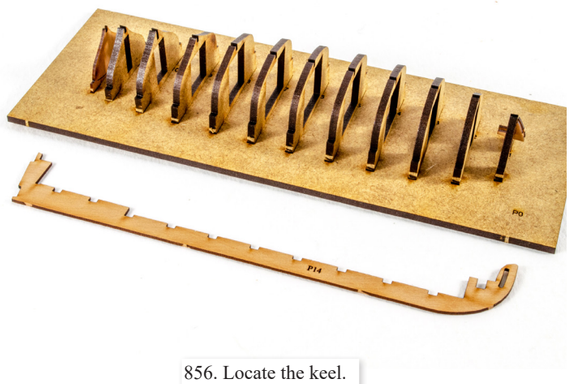
853. This boat differs slightly in that the first bulkhead has the bow timbers P15 added to it before plugging into the jig base.

849. Now take the oars C26 from the 0.6mm wood sheet. Shape the paddle and paint the shafts in white.

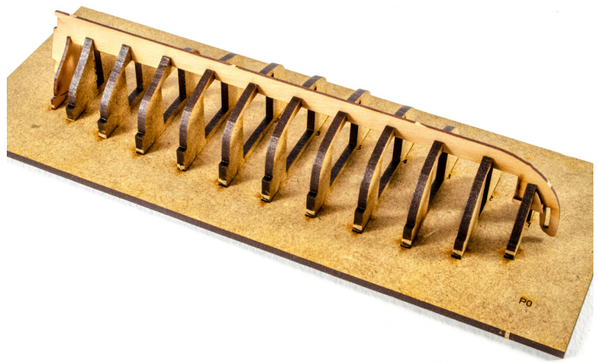
850. Fit the oars within the hull, along with the anchor and two boat hooks CPE-10.

854. Progress as before with the bulkheads.

855. The final bulkhead, P12, is in wood.

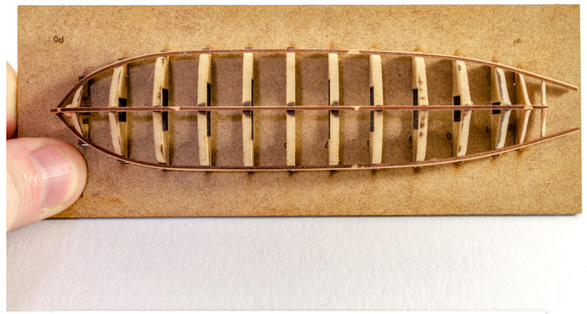


856. Locate the keel.



857. Glue into place.

862. Add the first planks.



863. Here you see how the planks flow along the hull.

858. Glue the wood part P13 to the keel.

859. Here you see that part is angled to match the rear of the keel.

864. Completely plank the hull.

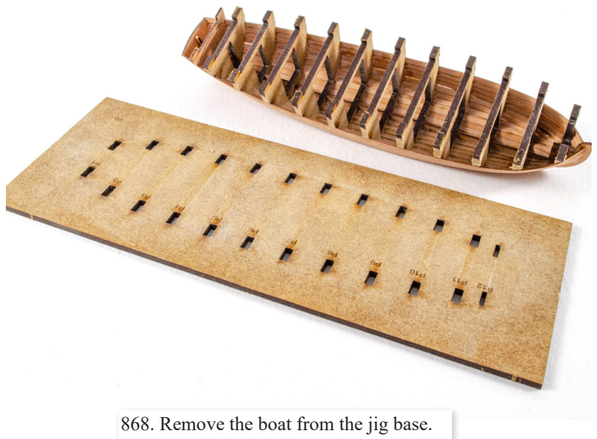
865. Shave away the MDF shoulders.

860. Sand the hull.

861. With the first planks, you can choose to soak and shape before fitting. If you do, make sure the parts are left 24hrs to thoroughly dry first.

866. Sand the hull.

867. Use filler if appropriate to do so.



868. Remove the boat from the jig base.

869. Remove the MDF bulkheads as before.

874. You can now add the bow deck and stern sheet.

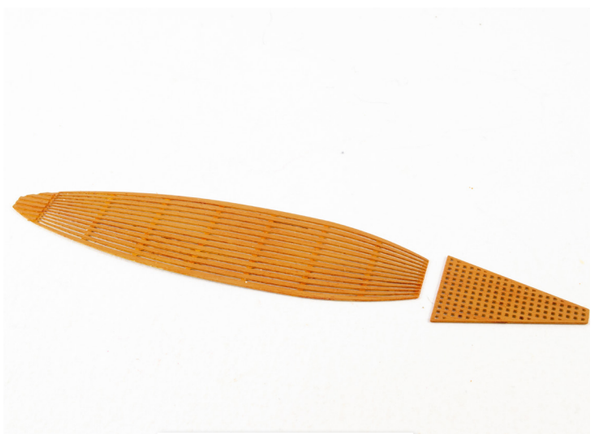
875. Fit the knees to the rear of the boat.

870. And fit out the hull with ribs, using 5mm spacing.

871. Add the seat support strips, approx. 4mm down from top of bulwark.

876. Now fit the seats as shown, including the knees.

877. Flush off the top of the bulwarks and add the gunwales.



872. Locate the floor sections.

873. Fit as before.

878. Now fit parts P28 and P29 into the engraved areas. The engravings on these parts will face outwards.

879. Locate the rudder from the 1mm wood sheet, and also the metal parts PPE/4 and PPE/5 from the 0.4mm PE sheet.

880. Assemble as shown.

885. Glue the rudder into place if you wish to show like this, otherwise show it stowed in the rear of the hull.

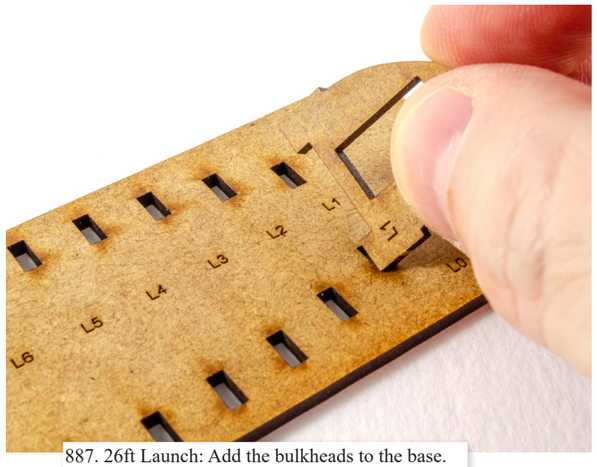
886. Fit the anchor, oars, and boat hooks.

881. Paint the lower hull in white and add the black wale strips as shown, using the same rules as for the 18ft cutter.

882. Now add the PE rowlocks PPE/6 from the 0.4mm PE sheet.

883. Make an anchor and paint black.

884. Locate the pinnace oars and prep/paint as with the cutter.

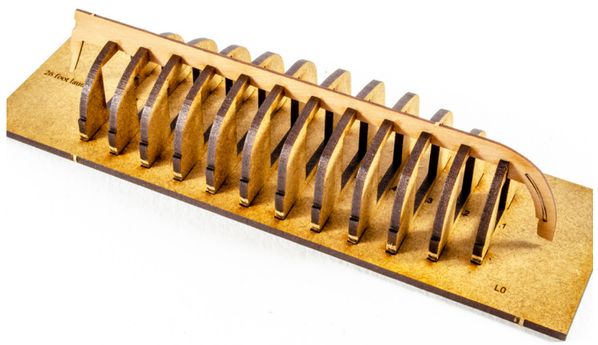


887. 26ft Launch: Add the bulkheads to the base.

888. Locate the keel.

893. Glue into place.

894. Sand the hull.

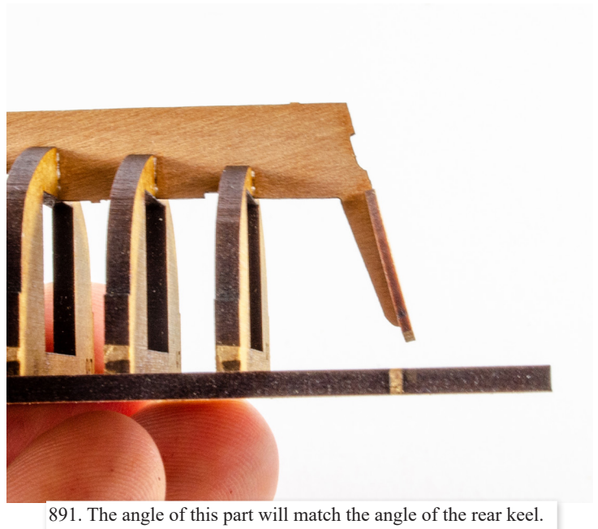


889. Glue keel into place.

890. Glue the wood bulkhead L13 into place.

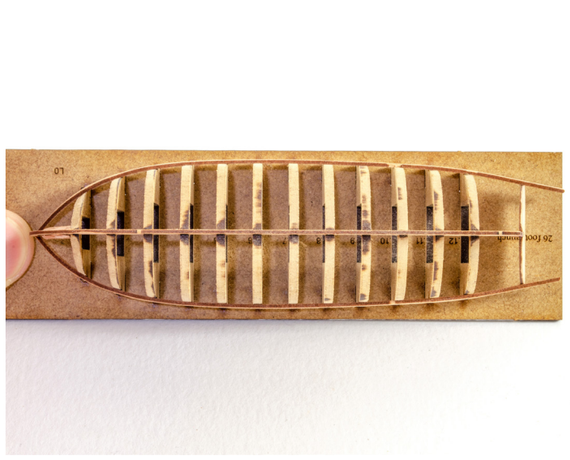
895. Again, you can shape the first planks before fitting.

896. Fit the first planks.



891. The angle of this part will match the angle of the rear keel.

892. Take parts L15 and shape/bevel like this.



897. Here you can see how the planks flow along the hull.

898. Completely plank the hull.

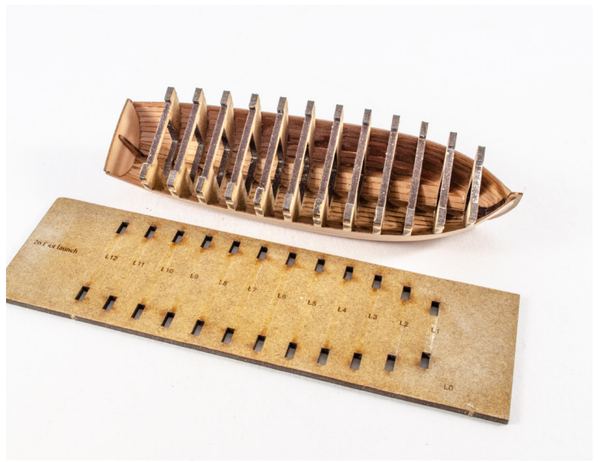
899. Remove the shoulders from the MDF jig.

900. Sand the hull.

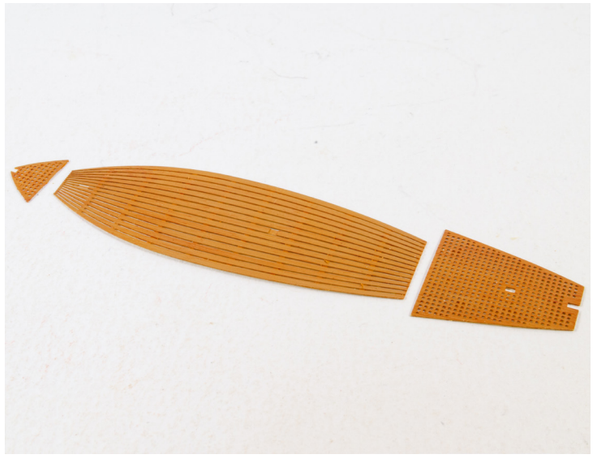
905. Clean up the interior of the hull and add the ribs.

906. Glue the seat support strips around 4-5mm down from top of the bulwarks.

901. Use filler if appropriate.



902. Remove the boat from the jig base.



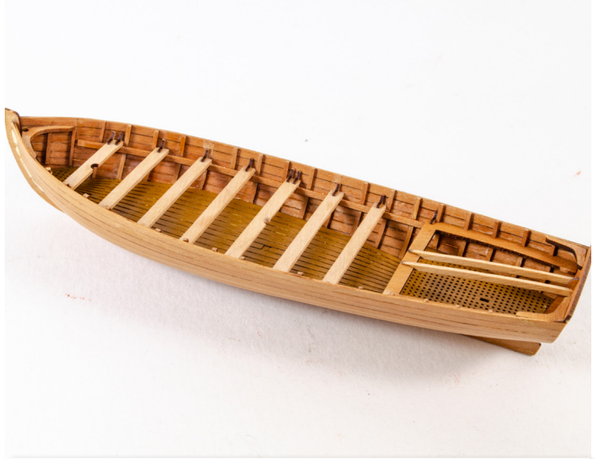
907. Locate the floor parts.

908. Fit as shown.

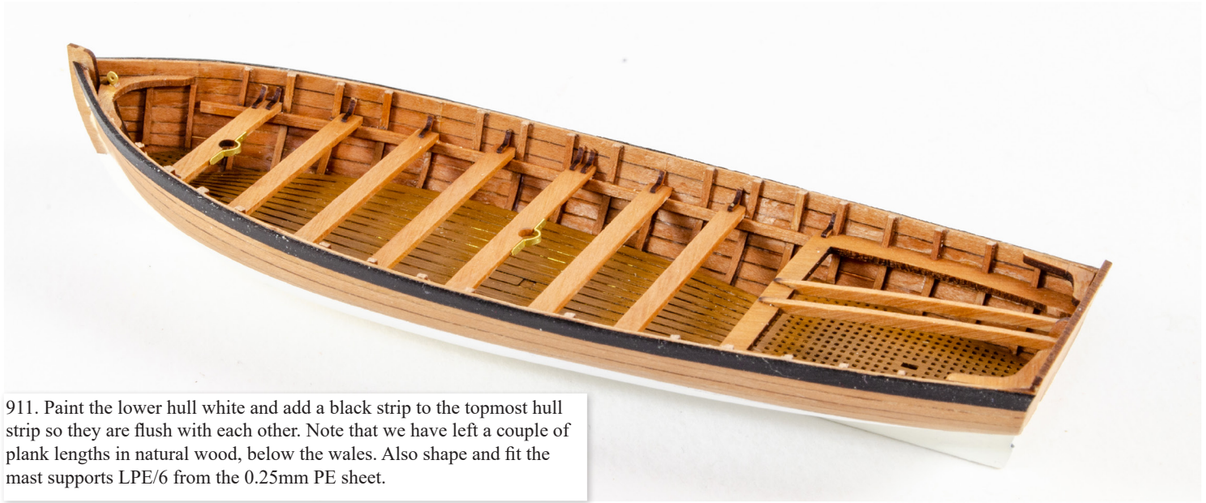
903. Remove the bridges from the MDF bulkheads.

904. Twist away the remaining bulkheads.

909. Now fit L27 and the knees to the rear of the hull.



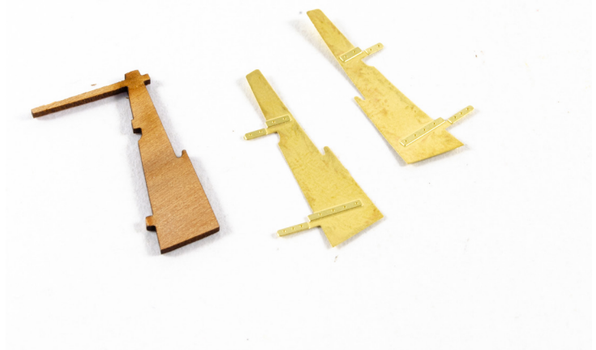
910. Add the seating, L28 and both parts L26 to the rear seating. You can also now add the small knees to the seating.



911. Paint the lower hull white and add a black strip to the topmost hull strip so they are flush with each other. Note that we have left a couple of plank lengths in natural wood, below the wales. Also shape and fit the mast supports LPE/6 from the 0.25mm PE sheet.

916. Prepare and paint a set of oars as before.

917. Fit the oars as well as the boat hooks and anchor. You can also see that we have photos of the boat with the rudder stowed.

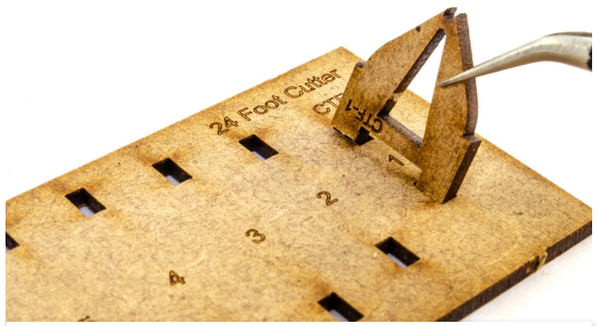


912. Take the rudder part and the PE parts LPE/4 and LPE/5 from the 0.4mm PE sheet.

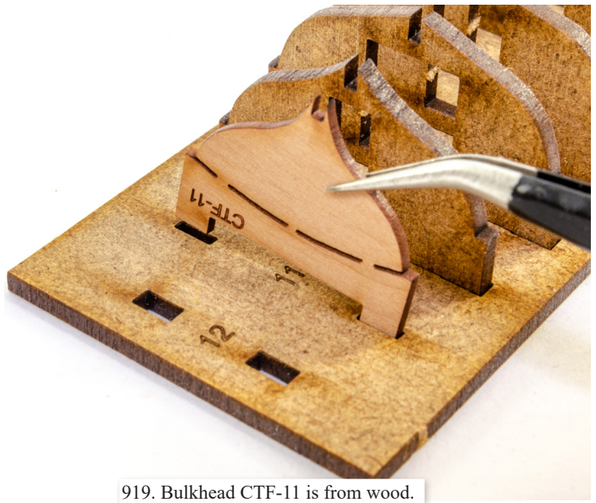
913. Assemble a shown.

914. If you want to fit the rudder to the hull, this is how it will be done.

915. Build an anchor and paint black.

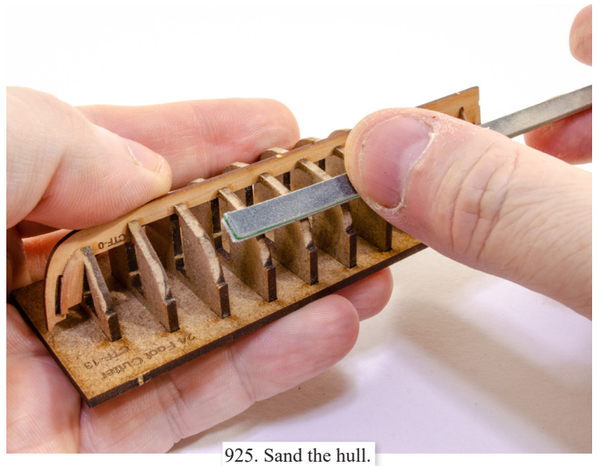


918. 24ft Cutter: You will note that we supply parts for TWO of these small boats. Indefatigable could well have had two of these boats. If this was the case, then you must leave one of them (the lowest) without the seating installed, as the other would sit nested within it. For ease of understanding, we have simply installed one of the launches to our prototype. Again, fit the bulkheads to the base.



919. Bulkhead CTF-11 is from wood.

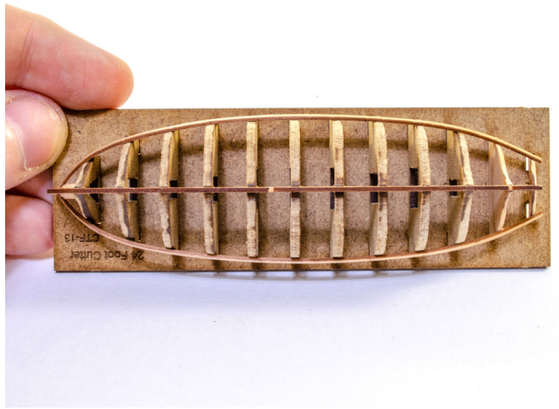
924. You can pre-shape the first planks.



925. Sand the hull.

920. Locate the keel.

921. Glue the keel into pace and also CTF-12.

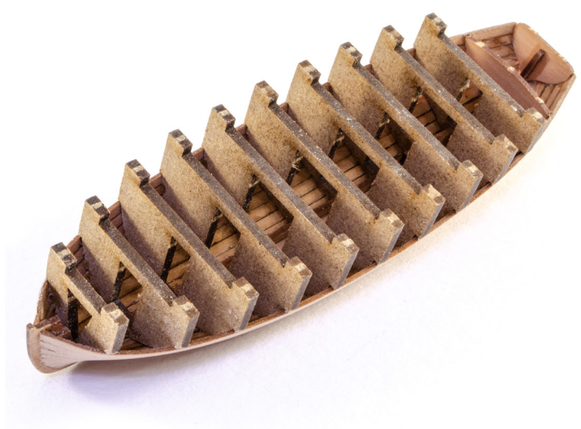


926. Here you see the first planks installed.

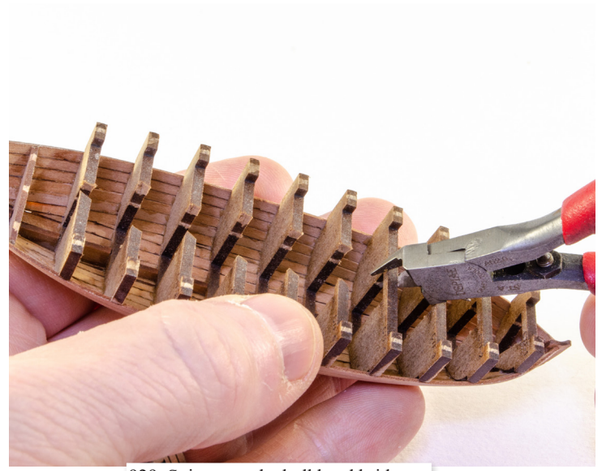
927. Plank and sand the hull smooth.

922. Shape both parts CTF-14.

923. Glue as shown.



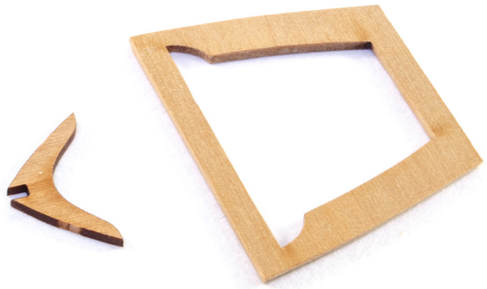
928. Remove the boat from the jig base.



929. Snip away the bulkhead bridges.

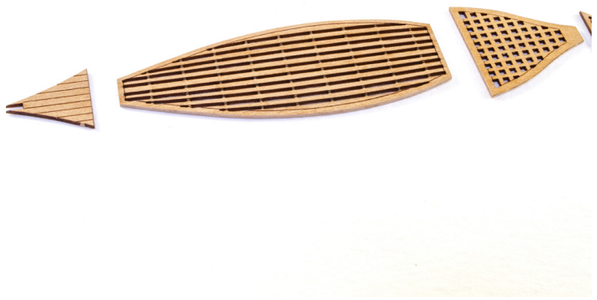
930. Twist away the remainder of the bulkheads.

931. Clean up the inside of the hull.



936. Locate these parts…

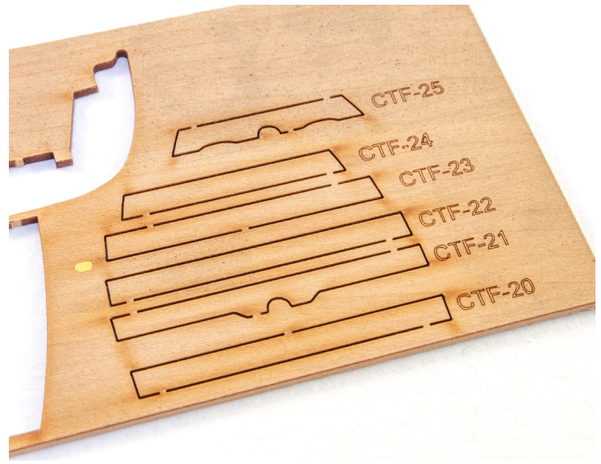
937. …and fit into the hull.



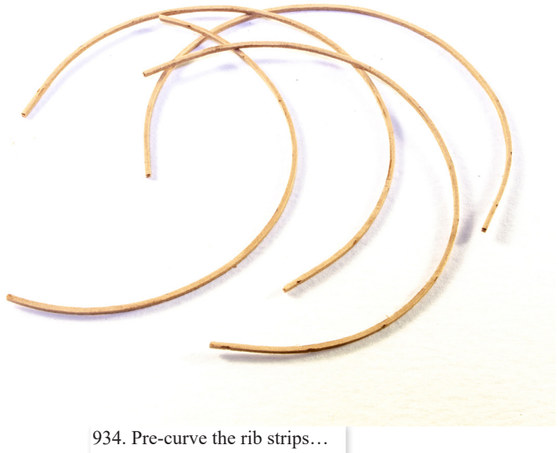
932. Locate the floor parts.

933. Glue into place.

938. Now fit the seat support strips about 2 planks down from the top of the bulwarks.



939. Locate the seating parts.



934. Pre-curve the rib strips…

935. …and fit into the hull.

940. Fit these into the hull and fit the thwart knees.

941. Paint the lower hull in white and apply a black strip for the wales, one plank down from top of bulwarks. Leave that upper area in natural timber and cut out the sections for the rowlocks. Prepare and paint the oars and fit them along with the boat hooks, stowed rudder, and anchor. Don't fit the boats to the cradles just yet as it could hamper the early rigging process.

942. We need to make four main anchors. For our Indefatigable kit, we supply the anchor as a 3D-printed part. You will also need to locate #406 and #407 from the 1mm wood sheet. Also locate two parts #129 from the 2mm wood sheet.

944. Now glue the engraved facings onto the stocks and leave to dry. When dry, sand all laminations so they are even.

943. Paint the anchor black. Glue/clamp parts #129 around the anchor and leave to dry.

945. Use some scrap black card from the sheet that held the rudder hinges and create the iron straps for the anchor. Glue with wood glue. Use some thick bras wire to make the hoop.

946. The acrylic cradle now needs to be built. This is very self-explanatory. When built, add the name plates. No glue should be needed for the cradle.

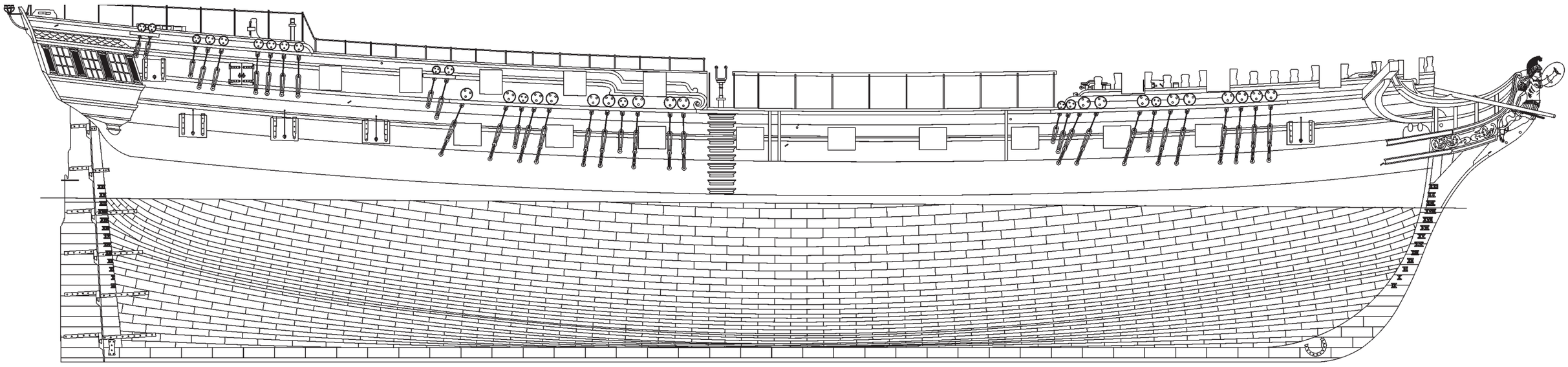
From here, you will need to follow the drawings for both masting and rigging. This will include making the boomkins, adding any blocks to the hull prior to rigging, and the various eyelets to the hull exterior. We'll leave you here to continue your journey with HMS Indefatigable, and we hope you have thoroughly enjoyed building this kit from Vanguard Models.

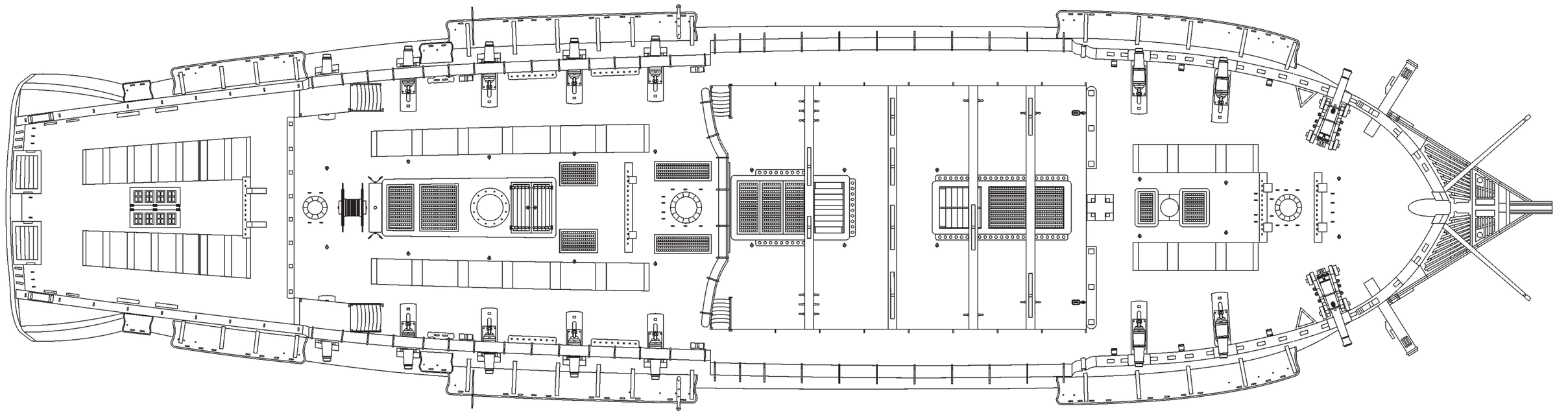
His Britannic Majesty's 44 Gun Frigate
INDEFATIGABLE
Built at Buckler's Hard in 1784
Converted to a Razee Frigate in 1794

His Britannic Majesty's 44 Gun Frigate
INDEFATIGABLE
Built at Bucklers Hard in 1784
Converted to a Razée Frigate in 1794

His Britannic Majesty's 44 Gun Frigate
INDEFATIGABLE
Built at Buckler's Hard in 1784
Converted to a Razée Frigate in 1794

His Britannic Majesty's 44 Gun Frigate
INDEFATIGABLE
Built at Buckler's Hard in 1784
Converted to a Razée Frigate in 1794





PARTS LIST

PART NO.	DESCRIPTION	MATERIAL	QTY
		6mm MDF	
T-DB	Quarterdeck Beam Camber Jig	6mm MDF	3
		4mm MDF	
0	Keel Pattern	4mm MDF	1
1	Bulkhead	4mm MDF	1
2	Bulkhead	4mm MDF	1
3	Bulkhead	4mm MDF	1
4	Bulkhead	4mm MDF	1
5	Bulkhead	4mm MDF	1
5b	Gun Deck Beam	4mm MDF	1
6	Bulkhead	4mm MDF	1
7	Bulkhead	4mm MDF	1
8	Bulkhead	4mm MDF	1
9	Bulkhead	4mm MDF	2
10	Bulkhead	4mm MDF	1
11	Bulkhead	4mm MDF	1
11b	Gun Deck Beam	4mm MDF	1
12	Bulkhead	4mm MDF	1
13	Bulkhead	4mm MDF	1
14	Bulkhead	4mm MDF	1
15	Bulkhead	4mm MDF	1
16	Bulkhead	4mm MDF	1
17	Bulkhead	4mm MDF	1
18	Bulkhead	4mm MDF	1
19	Inner Bow Pattern	4mm MDF	2
19b	Clamp Pattern for 19a	4mm MDF	2
20	Middle Bow Pattern	4mm MDF	2
21	Outer Bow Pattern	4mm MDF	2
22	Stern Pattern (Upper most)	4mm MDF	2
23	Stern Pattern	4mm MDF	2
24	Stern Pattern	4mm MDF	2
25	Stern Pattern	4mm MDF	2
26	Stern Pattern	4mm MDF	2
27	Stern Pattern	4mm MDF	2
28	Stern Pattern (Lower)	4mm MDF	2
29	Stern Pattern	4mm MDF	2
30	Longitudinal Alignment Pattern	4mm MDF	2
31	Building Cradle (Front)	4mm MDF	1
32	Building Cradle (Rear)	4mm MDF	1
33	Building Cradle Cross Beam	4mm MDF	2
UD-1	Forecastle Deck Beam and Bowsprit Step	4mm MDF	1
GDB1	Forecastle Deck Beam and Bowsprit Step	4mm MDF	15
K-2	Lower Deck Locking Position Key (Long)	4mm MDF	6
K-3	Lower Deck Locking Position Key (Short)	4mm MDF	16
T-1	Cathead Knee Jig (Right)	4mm MDF	2
T-2	Cathead Knee Jig (Right)	4mm MDF	2
T-3	Cathead Knee Jig Base (Right)	4mm MDF	1
T-4	Cathead Knee Jig (Left)	4mm MDF	2
T-5	Cathead Knee Jig (Left)	4mm MDF	2
T-6	Cathead Knee Jig Base (Left)	4mm MDF	2
T-8	Carronade Shot Garland Height Jig	4mm MDF	7
		3mm MDF	
34	Bow Inner Most Pattern	3mm MDF	2
35	Bow Forecastle pattern	3mm MDF	2
36	Keel Side Pattern (Main)	3mm MDF	2
37	Keel Side Pattern (Bow Front)	3mm MDF	2
38	Keel Side Pattern (Bow Middle)	3mm MDF	2
39	Keel Side Pattern (Bow Rear)	3mm MDF	2
40	Keel Side Pattern (Stern)	3mm MDF	2
41	Stern Frame (Outer)	3mm MDF	2
42	Stern Frame (Middle)	3mm MDF	2
43	Stern Frame (Inner)	3mm MDF	2
44	Tiller Bulkhead	3mm MDF	1
45	Stern Frame Connecting Beam	3mm MDF	1
46	Stern Frame Filler Pattern	3mm MDF	8
47	Stern Frame Filler Pattern (Outer Most)	3mm MDF	4
48	Stern Frame Filler Pattern (Deck Level)	3mm MDF	2
52	Quarterdeck Gun Port Vertical Frame	3mm MDF	2
53	Quarterdeck Gun Port Vertical Frame	3mm MDF	2
54	Quarterdeck Gun Port Vertical Frame	3mm MDF	2
G1a	Main Deck Gun Port Vertical Frame	3mm MDF	2
G1b	Main Deck Gun Port Vertical Frame	3mm MDF	2
G2a	Main Deck Gun Port Vertical Frame	3mm MDF	2
G2b	Main Deck Gun Port Vertical Frame	3mm MDF	2
G3a	Main Deck Gun Port Vertical Frame	3mm MDF	2
G3b	Main Deck Gun Port Vertical Frame	3mm MDF	2
G4a	Main Deck Gun Port Vertical Frame	3mm MDF	2
G4b	Main Deck Gun Port Vertical Frame	3mm MDF	2
G5a	Main Deck Gun Port Vertical Frame	3mm MDF	2
G5b	Main Deck Gun Port Vertical Frame	3mm MDF	2
G6a	Main Deck Gun Port Vertical Frame	3mm MDF	2
G6b	Main Deck Gun Port Vertical Frame	3mm MDF	2
G7b	Main Deck Gun Port Vertical Frame	3mm MDF	2
G8a	Main Deck Gun Port Vertical Frame	3mm MDF	2
G8b	Main Deck Gun Port Vertical Frame	3mm MDF	2
G9a	Main Deck Gun Port Vertical Frame	3mm MDF	2
G9b	Main Deck Gun Port Vertical Frame	3mm MDF	2
G10a	Main Deck Gun Port Vertical Frame	3mm MDF	2
G10b	Main Deck Gun Port Vertical Frame	3mm MDF	2
G11a	Main Deck Gun Port Vertical Frame	3mm MDF	2
G11b	Main Deck Gun Port Vertical Frame	3mm MDF	2
G12a	Main Deck Gun Port Vertical Frame	3mm MDF	2
G12b	Main Deck Gun Port Vertical Frame	3mm MDF	2
G13a	Main Deck Gun Port Vertical Frame	3mm MDF	2
G13b	Main Deck Gun Port Vertical Frame	3mm MDF	2
UGP-F	Gun Port Longitudinal Frame (Front Top)	3mm MDF	2
UGP-R	Gun Port Longitudinal Frame (Rear Top)	3mm MDF	2
LGP-F	Gun Port Longitudinal Frame (Front Lower)	3mm MDF	2
LGP-R	Gun Port Longitudinal Frame (Rear Lower)	3mm MDF	2
K-1	Locating key for Keel Side Patterns	3mm MDF	20
T-8	Forecastle, Quarterdeck and Poop Rail Jig	3mm MDF	5
		2mm MDF	
55	Orlop Section	2mm MDF	1
56	Lower Deck (Front)	2mm MDF	1
57	Lower Deck (Rear)	2mm MDF	1
58R	Upper Deck Beam Ledge (Rear)	2mm MDF	2
58F	Upper Deck Beam Ledge (Front)	2mm MDF	2
59	Poop Deck Beam Ledge	2mm MDF	2
60	Aft Quarterdeck gun port Strip (Lower)	2mm MDF	2
61	Aft Quarterdeck gun port Strip (Upper)	2mm MDF	2
62	Quarterdeck Bulwark Strip (Upper)	2mm MDF	2
63	Quarterdeck Bulwark Strip (Lower)	2mm MDF	2
64	Quarterdeck Vertical Door Frame	2mm MDF	2
65	Quarterdeck Upper Door Frame	2mm MDF	2
66	Quarterdeck Lower Door Frame	2mm MDF	2
67	Bow ‘V’ Frame	2mm MDF	1
68	Bow ‘V’ Frame	2mm MDF	1
69	Bow ‘V’ Frame	2mm MDF	1
70	Bow ‘V’ Frame	2mm MDF	1
71	Quarter Gallery Mid-Stool Pattern	2mm MDF	4
72	Quarter Gallery Lower Stool Pattern	2mm MDF	2
73	Quarter Gallery Upper Stool Pattern	2mm MDF	2
74	Quarter Gallery Lower/Upper Stool Spacer	2mm MDF	2
75	Quarter Gallery Lower/Upper Stool Spacer	2mm MDF	2
76	Quarter Gallery Upper Finishing	2mm MDF	2
10sb	Quarterdeck Bulkhead Cross Beam	2mm MDF	1
11sb	Quarterdeck Bulkhead Cross Beam	2mm MDF	1
12sb	Quarterdeck Bulkhead Cross Beam	2mm MDF	1
13sb	Quarterdeck Bulkhead Cross Beam	2mm MDF	1

14sb	Quarterdeck Bulkhead Cross Beam	2mm MDF	1
15pb	Aft Quarterdeck Bulkhead Cross Beam	2mm MDF	1
16pb	Aft Quarterdeck Bulkhead Cross Beam	2mm MDF	1
17pb	Aft Quarterdeck Bulkhead Cross Beam	2mm MDF	1
Sbk	Locking Key for 10-14sb	2mm MDF	12
T-7	Locking Key for Cathead Knee Jig	2mm MDF	8
P0	32 Foot Pinnace Building Board	2mm MDF	1
P1	32 Foot Pinnace Bulkhead	2mm MDF	1
P2	32 Foot Pinnace Bulkhead	2mm MDF	1
P3	32 Foot Pinnace Bulkhead	2mm MDF	1
P4	32 Foot Pinnace Bulkhead	2mm MDF	1
P5	32 Foot Pinnace Bulkhead	2mm MDF	1
P6	32 Foot Pinnace Bulkhead	2mm MDF	1
P7	32 Foot Pinnace Bulkhead	2mm MDF	1
P8	32 Foot Pinnace Bulkhead	2mm MDF	1
P9	32 Foot Pinnace Bulkhead	2mm MDF	1
P10	32 Foot Pinnace Bulkhead	2mm MDF	1
P11	32 Foot Pinnace Bulkhead	2mm MDF	1
L0	26 Foot Launch Building Board	2mm MDF	1
L1	26 Foot Launch Bulkhead	2mm MDF	1
L2	26 Foot Launch Bulkhead	2mm MDF	1
L3	26 Foot Launch Bulkhead	2mm MDF	1
L4	26 Foot Launch Bulkhead	2mm MDF	1
L5	26 Foot Launch Bulkhead	2mm MDF	1
L6	26 Foot Launch Bulkhead	2mm MDF	1
L7	26 Foot Launch Bulkhead	2mm MDF	1
L8	26 Foot Launch Bulkhead	2mm MDF	1
L9	26 Foot Launch Bulkhead	2mm MDF	1
L10	26 Foot Launch Bulkhead	2mm MDF	1
L11	26 Foot Launch Bulkhead	2mm MDF	1
L12	26 Foot Launch Bulkhead	2mm MDF	1
CTF-1	24 Foot Cutter Bulkhead	2mm MDF	2
CTF-2	24 Foot Cutter Bulkhead	2mm MDF	2
CTF-3	24 Foot Cutter Bulkhead	2mm MDF	2
CTF-4	24 Foot Cutter Bulkhead	2mm MDF	2
CTF-5	24 Foot Cutter Bulkhead	2mm MDF	2
CTF-6	24 Foot Cutter Bulkhead	2mm MDF	2
CTF-7	24 Foot Cutter Bulkhead	2mm MDF	2
CTF-8	24 Foot Cutter Bulkhead	2mm MDF	2
CTF-9	24 Foot Cutter Bulkhead	2mm MDF	2
CTF-10	24 Foot Cutter Bulkhead	2mm MDF	2
CTF-13	24 Foot Cutter Building Board	2mm MDF	2
C1	18 Foot Cutter Building Board	2mm MDF	1
C2	18 Foot Cutter Bulkhead	2mm MDF	1
C3	18 Foot Cutter Bulkhead	2mm MDF	1
C4	18 Foot Cutter Bulkhead	2mm MDF	1
C5	18 Foot Cutter Bulkhead	2mm MDF	1
C6	18 Foot Cutter Bulkhead	2mm MDF	1
C7	18 Foot Cutter Bulkhead	2mm MDF	1
C8	18 Foot Cutter Bulkhead	2mm MDF	1
C9	18 Foot Cutter Bulkhead	2mm MDF	1
C11	18 Foot Bow Planking Pattern	2mm MDF	2

6mm Pear

77	Aft Riding Bitt Pin	6mm Pear	2
78	Aft Riding Bitt	6mm Pear	1
79	Fore Riding Bitt Pin	6mm Pear	2
80	Fore Riding Bitt	6mm Pear	2
81	Fore Timberhead	6mm Pear	4
82	Bow ‘Seat of Ease (Right)	6mm Pear	1
83	Bow ‘Seat of Ease (Left)	6mm Pear	1
UD2	Forecastle Deck Beam	6mm Pear	1
UD3	Forecastle Deck Beam	6mm Pear	1
UD4	Forecastle Deck Beam	6mm Pear	1
UD5	Forecastle Deck Beam	6mm Pear	1
UD6	Forecastle Deck Beam	6mm Pear	1
UD7	Forecastle Deck Beam	6mm Pear	1
QD9	Quarterdeck Beam	6mm Pear	1
QD10	Quarterdeck Beam	6mm Pear	1
QD11	Quarterdeck Beam	6mm Pear	1
QD12	Quarterdeck Beam	6mm Pear	1
QD13	Quarterdeck Beam	6mm Pear	1
QD14	Quarterdeck Beam	6mm Pear	1
QD15	Quarterdeck Beam	6mm Pear	1
QD16	Quarterdeck Beam	6mm Pear	1
QD17	Quarterdeck Beam	6mm Pear	1
QD18	Quarterdeck Beam	6mm Pear	1
QD19	Quarterdeck Beam	6mm Pear	1

5mm Pear

84	Aft Riding Bitt Standard	5mm Pear	2
85	Fore Riding Bitt Standard	5mm Pear	2
86	Foremast Bitt Pin (Fore)	5mm Pear	2
87	Foremast Bitt Pin (Aft)	5mm Pear	1
88	Main Jeer/Main Topsail Sheet Bitt Standard	5mm Pear	4
89	Bow Wash Cant	5mm Pear	2
BB1	Boat Beam	5mm Pear	1
BB2	Boat Beam	5mm Pear	1
BB3	Boat Beam	5mm Pear	1
BB4	Boat Beam	5mm Pear	1
M-74	Fore Mast Cap	5mm Pear	1
M-75	Main Mast Cap	5mm Pear	1
M-76	Bowsprit Cap	5mm Pear	1

4mm Pear

19a	Bow Timber	4mm Pear	2
90	Keel (Front)	4mm Pear	1
91	Keel (Stern)	4mm Pear	1
92	Stern Post	4mm Pear	1
93	Prow	4mm Pear	1
94	Rudder	4mm Pear	1
95	Head Timber/Gammoning Knee	4mm Pear	1
96	Cathead Core	4mm Pear	2
97	Aft Main Mast Bitt Stanchion	4mm Pear	2
98	Ship’s Wheel Centre Drum	4mm Pear	2
99	Gun Deck Pump Body	4mm Pear	4
100	Forecastle Deck Beam Carling	4mm Pear	2
101	Quarterdeck Deck Beam Carling (Outer)	4mm Pear	2
102	Quarterdeck Deck Beam Carling (Inner)	4mm Pear	2
103	Quarterdeck Deck Beam Carling	4mm Pear	2
104	Main Brace Block	4mm Pear	2
105	Cat Block (Forecastle)	4mm Pear	2
M-71	Fore Top Cross Tree	4mm Pear	2
M-72	Main Top Cross Tree	4mm Pear	2
M-73	Mizzen Mast Cap	4mm Pear	1
PD1	Poop Deck Beam	4mm Pear	1
PD2	Poop Deck Beam	4mm Pear	1
PD3	Poop Deck Beam	4mm Pear	1
PD4	Poop Deck Beam	4mm Pear	1
PD5	Poop Deck Beam	4mm Pear	1
PD6	Poop Deck Beam	4mm Pear	1
PD7	Poop Deck Beam	4mm Pear	1
PD8	Poop Deck Beam	4mm Pear	1
PD9	Poop Deck Beam	4mm Pear	1
PD10	Poop Deck Beam	4mm Pear	1

3mm Pear

DPS	Upper Deck Pillar (Short)	3mm Pear	16
DPL	Upper Deck Pillar (Long)	3mm Pear	20
UDK2	Lodging Knee (Forecastle)	3mm Pear	2
UDK3	Lodging Knee (Forecastle)	3mm Pear	2
UDK4	Lodging Knee (Forecastle)	3mm Pear	2
UDK5	Lodging Knee (Forecastle)	3mm Pear	2
UDK6	Lodging Knee (Forecastle)	3mm Pear	2
QDK8	Lodging Knee (Quarterdeck)	3mm Pear	2
QDK9	Lodging Knee (Quarterdeck)	3mm Pear	2
QDK10	Lodging Knee (Quarterdeck)	3mm Pear	2
QDK11	Lodging Knee (Quarterdeck)	3mm Pear	2

QDK12	Lodging Knee (Quarterdeck)	3mm Pear	2
QDK13	Lodging Knee (Quarterdeck)	3mm Pear	2
QDK14	Lodging Knee (Quarterdeck)	3mm Pear	2
QDK15	Lodging Knee (Quarterdeck)	3mm Pear	2
QDK16	Lodging Knee (Quarterdeck)	3mm Pear	2
QDK17	Lodging Knee (Quarterdeck)	3mm Pear	2
QDK18	Lodging Knee (Quarterdeck)	3mm Pear	2
QDK19	Lodging Knee (Quarterdeck)	3mm Pear	2
UDH1	Hanging Knee (Forecastle & Quarterdeck)	3mm Pear	40
UDH2	Dummy Hanging Knee	3mm Pear	36
UDH3	Hanging Knee (Boat Beam)	3mm Pear	10
M-58	Fore Top Trestle Tree	3mm Pear	2
M-59	Main Top Trestle Tree	3mm Pear	2
M-60	Mizzen Top Trestle Tree	3mm Pear	2
M-61	Fore Top Trestle Tree Cross Piece	3mm Pear	1
M-62	Main Top Trestle Tree Cross Piece	3mm Pear	1
M-63	Mizzen Top Trestle Tree Cross Piece	3mm Pear	1
M-64	Mizzen Gaff Jaws	3mm Pear	1
M-65	Main Top Bolster	3mm Pear	2
M-66	Fore Top Bolster	3mm Pear	2
M-67	Fore Topmast Cap	3mm Pear	1
M-68	Main Topmast Cap	3mm Pear	1
M-69	Mizzen Topmast Cap	3mm Pear	1
M-70	Mizzen Crosstree	3mm Pear	2
PD0	Poop Beam	3mm Pear	1
QD/a	Pump Scuttle carling (Inner)	3mm Pear	2
QD/b	Pump Scuttle carling (Outer)	3mm Pear	2
QD15a	Quarterdeck Aft Hatch Beam	3mm Pear	1
49	Quarter Gallery Lower Finishing (Upper)	3mm Pear	2
50	Quarter Gallery Lower Finishing (Lower)	3mm Pear	2
51	Quarter Gallery Lower Finishing 'Drop'	3mm Pear	2
106 (a-f)	Forecastle Rail Timberhead	3mm Pear	6
107	Cathead Cleat	3mm Pear	2
108	Lower Capstan Whelp	3mm Pear	6
109	Poop Bitt Knee	3mm Pear	2
110	Cavel Cleat	3mm Pear	6
111	Cavel Block (Forecastle)	3mm Pear	6
112	Cavel Block	3mm Pear	6
113	Cavel Block (Quarterdeck Bulwark)	3mm Pear	6

2mm Pear

114a-h	Quarterdeck Barricade Stanchion	2mm Pear	8
115a-h	Poop Barricade Stanchion	2mm Pear	8
116	Ships Wheel Standard (Front)	2mm Pear	1
117	Ships Wheel Standard (Rear)	2mm Pear	1
118	Bell Beam	2mm Pear	1
119	Upper Capstan Centre cap	2mm Pear	1
120	Upper Capstan Whelp	2mm Pear	6
121	Poop Step	2mm Pear	2
122	Large Cleat	2mm Pear	6
123	Poop Bitts Belaying Rack	2mm Pear	1
124	Forecastle Bitts Belaying Rack	2mm Pear	2
125	Quarterdeck Main Bitts Belaying Rack	2mm Pear	1
126	Main Gun Deck Bitts (Main Mast)	2mm Pear	2
127	Poop Carling	2mm Pear	2
128	Poop Carling	2mm Pear	2
129	Anchor Stock	2mm Pear	8
130	Fore Channel Knee	2mm Pear	24
131	Main Channel Knee (Short)	2mm Pear	16
132	Main Channel Knee (Tall)	2mm Pear	24
133	Mizzen Channel Knee	2mm Pear	12
134	Forecastle Timberhead (Gun Port)	2mm Pear	18
135	Forecastle Timberhead (Gun Port)	2mm Pear	16
136	Bow Cheek	2mm Pear	4
137	24 Pounder Carriage Front Axle	2mm Pear	28
138	24 Pounder Carriage Rear Axle	2mm Pear	28
139	24 Pounder Carriage Left Side	2mm Pear	27
140	24 Pounder Carriage Right Side	2mm Pear	27
141	24 Pounder Carriage Front Wheel	2mm Pear	60
142	24 Pounder Carriage Rear Wheel	2mm Pear	60
143	24 Pounder Carriage Stool Bed	2mm Pear	29
144	24 Pounder Carriage Stool Quoin	2mm Pear	29
145	12 Pounder Carriage Front Axle	2mm Pear	3
146	12 Pounder Carriage Rear Axle	2mm Pear	3
147	12 Pounder Carriage Left Side	2mm Pear	3
148	12 Pounder Carriage Right Side	2mm Pear	3
149	12 Pounder Carriage Front Wheel	2mm Pear	6
150	12 Pounder Carriage Rear Wheel	2mm Pear	6
151	12 Pounder Carriage Stool Bed	2mm Pear	3
152	12 Pounder Carriage Stool Quoin	2mm Pear	3
153	42 Pounder Carronade Skead	2mm Pear	19
154	42 Pounder Carronade Carriage	2mm Pear	19
155	42 Pounder Carronade Skead Beam	2mm Pear	19
156	42 Pounder Carronade Carriage Gudgeon	2mm Pear	19
157	42 Pounder Carronade Front Chock	2mm Pear	38
158	42 Pounder Carronade Carriage Slide key	2mm Pear	24
18Ca	18 Foot Cutter Cradle (Front)	2mm Pear	1
18Cb	18 Foot Cutter Cradle (Rear)	2mm Pear	1
24Ca	24 Foot Cutter Cradle (Front)	2mm Pear	2
24Cb	24 Foot Cutter Cradle (Rear)	2mm Pear	2
26La	26 Foot Launch Cradle (Front)	2mm Pear	1
26Lb	26 Foot Launch Cradle (Rear)	2mm Pear	1
32Pa	32 Foot Pinnace Cradle (Front)	2mm Pear	1
32Pb	32 Foot Pinnace Cradle (Middle)	2mm Pear	1
32Pc	32 Foot Pinnace Cradle (Rear)	2mm Pear	1
M-54	Main Topmast Trestle Tree	2mm Pear	2
M-55	Fore Topmast Trestle Tree	2mm Pear	2
M-56	Mizzen Bolster	2mm Pear	2
M-57	Lower Yard Sling Cleat	2mm Pear	8
PdkA	Poop Hanging Knee (Long)	2mm Pear	10
PdkB	Poop Hanging Knee (Short)	2mm Pear	12
Pdk2	Poop Lodging Knee (No Hanging Knee Fitted)	2mm Pear	2
Pdk3	Poop Lodging Knee (No Hanging Knee Fitted)	2mm Pear	2
Pdk4	Poop Lodging Knee	2mm Pear	2
Pdk5	Poop Lodging Knee	2mm Pear	2
Pdk6	Poop Lodging Knee	2mm Pear	2
Pdk7	Poop Lodging Knee	2mm Pear	2
Pdk8	Poop Lodging Knee	2mm Pear	2
Pdk9	Poop Lodging Knee	2mm Pear	2
Pdk10	Poop Lodging Knee (No Hanging Knee Fitted)	2mm Pear	2

1.5mm Pear

159	Lower Capstan Drumhead (Lower)	1.5mm Wood	1
160	Lower Capstan Drumhead (Upper)	1.5mm Wood	1
161	Upper/Lower Capstan Bar Hole Pattern	1.5mm Wood	2
162	Upper Capstan Drumhead (Lower)	1.5mm Wood	1
163	Upper Capstan Drumhead (Top)	1.5mm Wood	1
164	Foremast Base	1.5mm Wood	2
165	Main Mast Base	1.5mm Wood	2
166	Mizzen Mast Base	1.5mm Wood	2
167	Stove Brick Base	1.5mm Wood	1
168	Quarterdeck Edge Beam (Lower)	1.5mm Wood	1
169	Stern Tafferal	1.5mm Wood	1
170	Hawse Bolster	1.5mm Wood	2
171	Lower Bow Cheek Rail (Left)	1.5mm Wood	1
172	Lower Bow Cheek Rail (Right)	1.5mm Wood	1
173	Upper Bow Cheek Rail (Left)	1.5mm Wood	1
174	Upper Bow Cheek Rail (Right)	1.5mm Wood	1
175	Carronade Shot Garland (Short)	1.5mm Wood	6
176	Carronade Shot Garland (Short)	1.5mm Wood	10
177	Quarterdeck Bulwark Belaying Pin Shelf	1.5mm Wood	6
177b	Bow Bulwark Belaying Pin Shelf	1.5mm Wood	6
178	Shroud Cleat	1.5mm Wood	50
179	Cavel Block Spacer	1.5mm Wood	6
180	Side Fender (4 Required)	1.5mm Wood	6
181	Chesstree (2 Required)	1.5mm Wood	3
182	Poop Gangway Knee	1.5mm Wood	6
183	Lower Deck Forward Hatch Coaming (Lower)	1.5mm Wood	1
184	Lower Deck Forward Hatch Coaming (Upper)	1.5mm Wood	1
185	Lower Deck Mid Hatch Coaming (Lower)	1.5mm Wood	1

186	Lower Deck Mid Hatch Coaming (Upper)	1.5mm Wood	1
187	Gun Deck Fore Hatch Coaming (Lower)	1.5mm Wood	1
188	Gun Deck Fore Hatch Coaming (Upper)	1.5mm Wood	1
189	Gun Deck Fore Hatch Grating	1.5mm Wood	1
190	Gun Deck Fore Hatch Grating	1.5mm Wood	1
191	Gun Deck Main Hatch Coaming (Lower)	1.5mm Wood	1
192	Gun Deck Main Hatch Coaming (Upper)	1.5mm Wood	1
192a	Main Hatch Grating	1.5mm Wood	3
193	Gun Deck Hatch Coaming (Lower)	1.5mm Wood	1
194	Gun Deck Hatch Coaming (Upper)	1.5mm Wood	1
195	Grating for 194	1.5mm Wood	1
196	Gun Deck Aft Hatch Coaming (Lower)	1.5mm Wood	1
197	Gun Deck Aft Hatch Coaming (Upper)	1.5mm Wood	1
198	Grating for 197	1.5mm Wood	1
199	Grating for 197	1.5mm Wood	1
200	Bread Room Scuttle	1.5mm Wood	1
201	Main Bow Rail (Inner Left)	1.5mm Wood	1
202	Main Bow Rail (Inner Right)	1.5mm Wood	1
M-42	Fore and Main Topmast Fid	1.5mm Wood	2
M-43	Large Mast/Yard Cleat	1.5mm Wood	20
M-44	Topsail and Crossjack Yard Sling Cleat	1.5mm Wood	12
M-45	Lower Mast Head Cleat	1.5mm Wood	12
M-46	Main Top Platform	1.5mm Wood	1
M-47	Fore Top Platform	1.5mm Wood	1
M-48	Mizzen Top Platform	1.5mm Wood	1
M-49	Mizzen Topmast Trestletree	1.5mm Wood	2
M-50	Jibboom Saddle (1 Required)	1.5mm Wood	2
M-51	Dolphin Striker (Flying Jibboom Fitted)	1.5mm Wood	1
M-51a	Dolphin Striker (Flying Jibboom Omitted)	1.5mm Wood	1
M-52	Bowsprit Bees	1.5mm Wood	1
M-53	Mizzen Driver Boom Jaws (1 required)	1.5mm Wood	2

1mm Pear

203	Main Bow Rail (Outer Left)	1mm Wood	1
204	Main Bow Rail (Outer Right)	1mm Wood	1
205	Main Bow Rail Timberhead (Outer Left)	1mm Wood	1
206	Main Bow Rail Timberhead (Outer Right)	1mm Wood	1
207	Bow Ledge (Inner)	1mm Wood	1
208	Bow Ledge (Outer)	1mm Wood	1
209	Prow outer Pattern	1mm Wood	2
210	Lower Bow Rail (Left)	1mm Wood	1
211	Lower Bow Rail (Right)	1mm Wood	1
212	Bow Ekeing (Outer Left)	1mm Wood	1
213	Bow Ekeing (Outer Right)	1mm Wood	1
214	Bow Ekeing (Inner)	1mm Wood	1
215	Bow Gammoning Bolster	1mm Wood	2
216	Forecastle Gunwale	1mm Wood	2
217	Quarterdeck Bulwark Gunwale	1mm Wood	2
218	Poop Gunwale	1mm Wood	2
219	Quarterdeck Inner Bulwark (Right)	1mm Wood	1
220	Quarterdeck Inner Bulwark (Left)	1mm Wood	1
221	Main Drift Rail (Right)	1mm Wood	1
222	Main Drift Rail (Left)	1mm Wood	1
223	Quarterdeck Planksheer (Right)	1mm Wood	2
224	Quarterdeck Planksheer (Left)	1mm Wood	2
225	Hull Fender and Chesstree ‘Packing’	1mm Wood	6
226	Quarter Gallery Base (Left)	1mm Wood	1
227	Quarter Gallery Base (Right)	1mm Wood	1
228	Forecastle Bulwark Pattern	1mm Wood	2
229	Stern Cabin Rear Bulkhead	1mm Wood	1
230	Rudder Casing End Panel (1 Required)	1mm Wood	1
231	Rudder Casing Side Panel (Right)	1mm Wood	1
232	Rudder Casing Side Panel (Left)	1mm Wood	1
233	Rudder Casing Side Panel (Right)	1mm Wood	1
234	Rudder Casing Side Panel (Left)	1mm Wood	1
235	Rudder Casing Top Canopy	1mm Wood	1
236	Stern Upper Counter Rail	1mm Wood	1
237	Stern Lower Counter Rail	1mm Wood	1
238	Quarter Gallery Upper Rail (Right)	1mm Wood	1
239	Quarter Gallery Upper Rail (Left)	1mm Wood	1
240	Quarter Gallery Lower Rail (Right)	1mm Wood	1
241	Quarter Gallery Lower Rail (Left)	1mm Wood	1
242	Quarter Gallery Lower Finishing Rail (Right)	1mm Wood	1
243	Quarter Gallery Lower Finishing Rail (Right)	1mm Wood	1
244	Wing Transom Rail (Right)	1mm Wood	1
245	Wing Transom Rail (Left)	1mm Wood	1
246	Quarter deck bulwark (Left)	1mm Wood	1
247	Mid Hull Bulwark	1mm Wood	2
248	Forecastle bulwark (Left)	1mm Wood	1
249	Quarter Gallery Upper Finishing Canopy	1mm Wood	2
250	Quarter deck bulwark (Right)	1mm Wood	1
251	Forecastle bulwark (Right)	1mm Wood	1
252	Quarterdeck Outer bulwark (Left)	1mm Wood	1
253	Quarterdeck Outer bulwark (Right)	1mm Wood	1
254	Fore Drift rail (Right)	1mm Wood	1
256	Forecastle Inner Bulwark (Right)	1mm Wood	1
257	Forecastle Inner Bulwark (Left)	1mm Wood	1
258	Poop Inner Bulwark	1mm Wood	2
259	Waist/Mid Deck Gunwale	1mm Wood	2
260	Gundeck Bulwark Upper Ledge (Front Right)	1mm Wood	1
261	Gundeck Bulwark Upper Ledge (Rear Right)	1mm Wood	1
262	Gundeck Bulwark Upper Ledge (Front Left)	1mm Wood	1
263	Gundeck Bulwark Upper Ledge (Rear Left)	1mm Wood	1
264	Gundeck Bulwark Spirketting (Front Left)	1mm Wood	1
265	Gundeck Bulwark Spirketting (Rear Left)	1mm Wood	1
266	Gundeck Bulwark Spirketting (Front Right)	1mm Wood	1
267	Gundeck Bulwark Spirketting (Front Left)	1mm Wood	1
268	Gundeck Inner Bulwark (Left)	1mm Wood	1
268f	Gundeck Inner Bulwark (Front Optional)	1mm Wood	2
269	Gundeck Inner Bulwark (Left)	1mm Wood	1
270	Gundeck Inner Bulwark (Left)	1mm Wood	1
271	Gundeck Inner Bulwark (Left)	1mm Wood	1
272	Gundeck Inner Bulwark (Right)	1mm Wood	1
273	Gundeck Inner Bulwark (Right)	1mm Wood	1
274	Gundeck Inner Bulwark (Right)	1mm Wood	1
275	Gundeck Inner Bulwark (Right)	1mm Wood	1
276	Quarter Gallery Window Fascia (Outer)	1mm Wood	2
277	Small Cleat	1mm Wood	16
278	Lower Capstan Base	1mm Wood	1
279	Upper Capstan Drumhead (Lower)	1mm Wood	1
280	Lower Capstan Chock	1mm Wood	2
281	Upper Capstan Chock (Lower)	1mm Wood	1
282	Upper Capstan Chock (Upper)	1mm Wood	1
283	Capstan Pawl	1mm Wood	4
284	Binnacle Bottom Cross Piece	1mm Wood	1
285	Binnacle Middle Cross Piece	1mm Wood	1
286	Binnacle Upper Cross Piece	1mm Wood	1
287	Binnacle End	1mm Wood	2
288	Binnacle Canopy	1mm Wood	1
289	Binnacle Side	1mm Wood	2
290	Forecastle Breast Beam (Top and Bottom)	1mm Wood	4
291	Flag Locker End Panel (Inner End Right)	1mm Wood	1
292	Flag Locker End Panel (Outer End Left)	1mm Wood	1
293	Flag Locker End Panel (Inner End Left)	1mm Wood	1
294	Flag Locker End Panel (Outer End Right)	1mm Wood	1
295	Flag Locker Rear Panel	1mm Wood	2
296	Flag Locker Canopy (Left)	1mm Wood	1
297	Flag Locker Canopy (Right)	1mm Wood	1
298	Poop Gangway Platform (Left)	1mm Wood	1
299	Poop Gangway Platform (Right)	1mm Wood	1
300	Poop Barricade Cross Piece	1mm Wood	2
301	Quarterdeck Barricade Base Rail	1mm Wood	1
302	Quarterdeck Barricade Mid Rail (Centre)	1mm Wood	1
303	Quarterdeck Barricade Mid Rail (left)	1mm Wood	1
304	Quarterdeck Barricade Mid Rail (Right)	1mm Wood	1
305	Ships Wheel Drum End Cap	1mm Wood	2
306	Quarterdeck Beam (Top)	1mm Wood	1
307	Quarterdeck Beam (Middle Upper)	1mm Wood	1
308	Quarterdeck Beam (Middle Lower)	1mm Wood	1
309	Quarterdeck Beam Alignment Key	1mm Wood	4

400	Rudder Right Face	1mm Wood	1
401	Rudder Left Face	1mm Wood	1
402	Lower Stern Counter (Inner)	1mm Wood	1
403	Cleat for Inner Stern Fascia	1mm Wood	8
404	Outer Stern Fascia	1mm Wood	1
405	Stern Upper Counter (Inner)	1mm Wood	1
406	Anchor Stock Side	1mm Wood	4
407	Anchor Stock Side	1mm Wood	4
408	Quarterdeck Hatch Coaming (Lower)	1mm Wood	1
409	Quarterdeck Hatch Coaming (Upper)	1mm Wood	1
410	Quarterdeck Hatch Grating	1mm Wood	1
411	Quarterdeck Hatch Grating	1mm Wood	1
412	Forecastle Hatch Coaming (Rear Lower)	1mm Wood	1
413	Forecastle Hatch Coaming (Rear Upper)	1mm Wood	1
414	Forecastle Hatch Coaming (Fore Lower)	1mm Wood	1
415	Forecastle Hatch Coaming (Fore Upper)	1mm Wood	1
416	Forecastle Hatch Grating (Rear)	1mm Wood	1
417	Forecastle Hatch Grating (Fore)	1mm Wood	1
418	12 Pounder Shot Garland	1mm Wood	4
419	Poop Skylight End Panel	1mm Wood	2
420	Poop Skylight Side Panel	1mm Wood	2
421	Poop Skylight Top Support (Upper)	1mm Wood	1
422	Poop Skylight Top Support (Lower)	1mm Wood	1
423	Poop Skylight Shutter	1mm Wood	2
424	Cathead Outer Panel (Bottom)	1mm Wood	2
425	Cathead Outer Panel (Top)	1mm Wood	2
426	Cathead Side Panel (Rear Left)	1mm Wood	1
427	Cathead Side Panel (Front Left)	1mm Wood	1
428	Cathead Side Panel (Rear Right)	1mm Wood	1
429	Cathead Side Panel (Front Right)	1mm Wood	1
430	Cathead End Cap (Inner)	1mm Wood	2
431	Cathead End cap (Outer)	1mm Wood	2
432	Medium Cleat	1mm Wood	10
433	Rudder Post Outer Pattern (Left)	1mm Wood	1
434	Rudder Post Outer Pattern (Right)	1mm Wood	1
435	Prow Outer Pattern (Right)	1mm Wood	1
436	Prow Outer Pattern (Left)	1mm Wood	1
437	Keel Outer Pattern (Right Front)	1mm Wood	1
438	Keel Outer Pattern (Right Rear)	1mm Wood	1
439	Keel Outer Pattern (left Front)	1mm Wood	1
440	Keel Outer Pattern (Left Rear)	1mm Wood	1
441	Keel Alignment key	1mm Wood	16
CF-1	Cabin Sideboard Front	1mm Wood	1
CF-2	Cabin Sideboard Rear	1mm Wood	1
CF-3	Cabin Sideboard Cross Piece	1mm Wood	2
CF-4	Cabin Sideboard Side	1mm Wood	2
CF-5	Cabin Sideboard Top	1mm Wood	1
UD7f	Forecastle Moulding	1mm Wood	1
Pd0f	Poop Moulding	1mm Wood	1
C10	18 Foot Cutter keel	1mm Wood	1
C14	18 Foot Bulkhead	1mm Wood	1
C15	18 Foot Stern Bulkhead	1mm Wood	1
C16	18 Foot Stern Sheet (Seat)	1mm Wood	1
C17	18 Foot Cutter Seat	1mm Wood	1
C18	18 Foot Cutter Seat	1mm Wood	1
C19	18 Foot Cutter Seat	1mm Wood	1
C21	18 Foot Cutter Knee	1mm Wood	2
CTF-0	24 Foot Cutter Keel	1mm Wood	2
CTF-11	24 Foot Cutter Bulkhead	1mm Wood	2
CTF-12	24 Foot Cutter Stern Bulkhead	1mm Wood	2
CTF-14	24 Foot Cutter Bow Plank Pattern	1mm Wood	4
CTF-16	24 Foot Cutter Fore Floor	1mm Wood	2
CTF-19	24 Foot Cutter Stern Sheet	1mm Wood	2
CTF-20	24 Foot Cutter Seat	1mm Wood	2
CTF-21	24 Foot Cutter Seat	1mm Wood	2
CTF-22	24 Foot Cutter Seat	1mm Wood	2
CTF-23	24 Foot Cutter Seat	1mm Wood	2
CTF-24	24 Foot Cutter Seat	1mm Wood	2
CTF-25	24 Foot Cutter Seat	1mm Wood	2
CTF-26	24 Foot Cutter Bow Knee	1mm Wood	2
CTF-27	24 Foot Cutter Rudder	1mm Wood	2
L13	26 Foot Launch rear Bulkhead	1mm Wood	1
L14	26 Foot Launch Keel	1mm Wood	1
L15	26 Foot Launch Bow Timber	1mm Wood	2
L16	26 Foot Launch Seat	1mm Wood	1
L17	26 Foot Launch Seat	1mm Wood	1
L18	26 Foot Launch Seat	1mm Wood	1
L19	26 Foot Launch Seat	1mm Wood	1
L20	26 Foot Launch Seat	1mm Wood	1
L21	26 Foot Launch Seat	1mm Wood	1
L22	26 Foot Launch Seat	1mm Wood	1
L23	26 Foot Launch Rudder	1mm Wood	1
L24	26 Foot Launch Stern Knee	1mm Wood	2
L25	26 Foot Launch Stern Davit	1mm Wood	1
L26	26 Foot Launch Stern Davit Support	1mm Wood	2
L27	26 Foot Launch Stern Sheet	1mm Wood	1
L28	26 Foot Launch Bow Knee	1mm Wood	1
P12	32 Foot Pinnace Bulkhead	1mm Wood	1
P13	32 Foot Pinnace Rear Bulkhead	1mm Wood	1
P14	32 Foot Pinnace Keel	1mm Wood	1
P15	32 Foot Pinnace Bow Timber	1mm Wood	2
P16	32 Foot Pinnace Bow Deck	1mm Wood	1
P17	32 Foot Pinnace Rudder	1mm Wood	1
P18	32 Foot Pinnace Seat	1mm Wood	1
P19	32 Foot Pinnace Seat	1mm Wood	1
P20	32 Foot Pinnace Seat	1mm Wood	1
P21	32 Foot Pinnace Seat	1mm Wood	1
P22	32 Foot Pinnace Seat	1mm Wood	1
P23	32 Foot Pinnace Seat	1mm Wood	1
P24	32 Foot Pinnace Stern Sheet	1mm Wood	1
P25	32 Foot Pinnace Stern Knee	1mm Wood	2
M-4	Fore Top Gunwale	1mm Wood	1
M-5	Main Top Gunwale	1mm Wood	1
M-6	Mizzen Top Gunwale	1mm Wood	1
M-7	Fore Top Rail	1mm Wood	1
M-8	Main Top Rail	1mm Wood	1
M-9	Mizzen Top Rail	1mm Wood	1
M-10	Fore Topgallant Mast Cap	1mm Wood	1
M-11	Main Topgallant Mast Cap	1mm Wood	1
M-12	Mizzen Topgallant Mast Cap	1mm Wood	1
M-13	Main Crosstrees and Tresteltrees	1mm Wood	1
M-14	Fore Crosstrees and Tresteltrees	1mm Wood	1
M-15	Mizzen Crosstrees and Tresteltrees	1mm Wood	1
M-16	Foremast Bibb (Left)	1mm Wood	1
M-17	Foremast Bibb (Right)	1mm Wood	1
M-18	Main Mast Bibb (Left)	1mm Wood	1
M-19	Main Mast Bibb (Right)	1mm Wood	1
M-20	Mizzen Mast Bibb (Left)	1mm Wood	1
M-21	Mizzen Mast Bibb (Right)	1mm Wood	1
M-22	Foremast Cheek	1mm Wood	2
M-23	Main Mast Cheek	1mm Wood	2
M-24	Foremast Front Fish	1mm Wood	1
M-25	Main Mast Front Fish	1mm Wood	1
M-26	7.5mm Open Heart Block Outer	1mm Wood	2
M-27	7.5mm Open Heart Block Inner	1mm Wood	1
M-28	7.5mm Open Heart Block Alignment Key	1mm Wood	2
M-29	9mm Closed Heart Block Outer	1mm Wood	2
M-30	9mm Closed Heart Block Inner	1mm Wood	1
M-31	9mm Closed Heart Block Alignment Key	1mm Wood	2
M-32	10mm Closed Heart Block Outer	1mm Wood	2
M-33	10mm Closed Heart Block Inner	1mm Wood	1
M-34	10mm Closed Heart Block Alignment Key	1mm Wood	2
M-35	8mm Open Heart Block Outer	1mm Wood	2
M-36	8mm Open Heart Block Inner	1mm Wood	1
M-37	8mm Open Heart Block Alignment Key	1mm Wood	2
M-38	Topgallant Yards Cleat	1mm Wood	40
M-39	Standard Cleat	1mm Wood	120
M-40	Mizzen Topmast Fid	1mm Wood	1
M-41	Topgallant Mast Fid	1mm Wood	3
M-77	Bowsprit Fairlead	1mm Wood	1
M-78	Mizzen Boom Support	1mm Wood	1
M-79	Mizzen Boom Support Knee	1mm Wood	5

M-81	Topmast Cheek Block End	1mm Wood	8
M-82	Topmast Cheek Block Centre	1mm Wood	4

0.8mm Pear

442	Hand Pump Top Cap	0.8mm Wood	2
443	Hand Pump Handle	0.8mm Wood	2
444	Top Tackle Scuttle Grating	0.8mm Wood	2
445	Pump Scuttle Grating	0.8mm Wood	2
446	Fore Channel (Left)	0.8mm Wood	1
447	Fore Channel (Right)	0.8mm Wood	1
448	Main Channel (Left)	0.8mm Wood	1
449	Main Channel (Right)	0.8mm Wood	1
450	Main Stool (Left)	0.8mm Wood	1
451	Main Stool (Right)	0.8mm Wood	1
452	Boat Oar	0.8mm Wood	48
453	Mizzen Channel (Left)	0.8mm Wood	1
454	Mizzen Channel (Right)	0.8mm Wood	1
455	Mizzen Stool (Left)	0.8mm Wood	1
456	Mizzen Stool (Right)	0.8mm Wood	1
457	Quarterdeck Gun Port Lid (Left)	0.8mm Wood	1
458	Quarterdeck Gun Port Lid (Right)	0.8mm Wood	1
459	Q/deck Gun Port Half Lid (Right Forward)	0.8mm Wood	1
460	Q/deck Gun Port Half Lid (Right Aft)	0.8mm Wood	1
461	Q/deck Gun Port Half Lid (Left Aft)	0.8mm Wood	1
462	Q/deck Gun Port Half Lid (Left Forward)	0.8mm Wood	1
463	Main Gun Deck Gunport Upper Lid (Left)	0.8mm Wood	1
464	Main Gun Deck Gunport Lower Lid (Left)	0.8mm Wood	1
465	Main Gun Deck Gunport Upper Lid (Right)	0.8mm Wood	1
466	Main Gun Deck Gunport Lower Lid (Right)	0.8mm Wood	1
467	Main Gun Deck Gunport Upper Lid (Left)	0.8mm Wood	1
468	Main Gun Deck Gunport Lower Lid (Left)	0.8mm Wood	1
469	Main Gun Deck Gunport Lid Wale (Left)	0.8mm Wood	1
470	Main Gun Deck Gunport Upper Lid (Right)	0.8mm Wood	1
471	Main Gun Deck Gunport Lower Lid (Right)	0.8mm Wood	1
472	Main Gun Deck Gunport Lid Wale (Right)	0.8mm Wood	1
473	Main Gun Deck Gunport Upper Lid (Left)	0.8mm Wood	1
474	Main Gun Deck Gunport Lower Lid (Left)	0.8mm Wood	1
475	Main Gun Deck Gunport Lid Wale (Left)	0.8mm Wood	1
476	Main Gun Deck Gunport Upper Lid (Right)	0.8mm Wood	1
477	Main Gun Deck Gunport Lower Lid (Right)	0.8mm Wood	1
478	Main Gun Deck Gunport Lid Wale (Right)	0.8mm Wood	1
479	Main Gun Deck Gunport Upper Lid (Left)	0.8mm Wood	1
480	Main Gun Deck Gunport Lower Lid (Left)	0.8mm Wood	1
481	Main Gun Deck Gunport Lower Lid (Right)	0.8mm Wood	1
482	Main Gun Deck Gunport Lower Lid (Right)	0.8mm Wood	1
P26	32 Foot Pinnace Thwart Knee	0.8mm Wood	16
P27a	32 Foot Pinnace Left Gunwale	0.8mm Wood	1
P27b	32 Foot Pinnace Right Gunwale	0.8mm Wood	1
P28	32 Foot Pinnace Fore Rail	0.8mm Wood	2
P29	32 Foot Pinnace Aft Rail	0.8mm Wood	2
P30	32 Foot Pinnace Planking Set	0.8mm Wood	2
P31	32 Foot Pinnace Ribs Set	0.8mm Wood	1
P32	32 Foot Pinnace Seat Support Set	0.8mm Wood	1
PPE/1	32 Foot Pinnace Floor	0.8mm Wood	1
PPE/2	32 Foot Pinnace Floor (Aft Lower)	0.8mm Wood	1
PPE/3	32 Foot Pinnace Floor (Aft Upper)	0.8mm Wood	1
L29	26 Foot Launch Planking Set	0.8mm Wood	2
L30	26 Foot Launch Ribs Set	0.8mm Wood	1
L31	26 Foot Launch Seat Support Set	0.8mm Wood	1
L32	26 Foot Launch Thwart Knee	0.8mm Wood	42
LPE/1	26 Foot Launch Main Floor	0.8mm Wood	1
LPE/2	26 Foot Launch Fore Floor	0.8mm Wood	1
LPE/3	26 Foot Launch Aft Floor	0.8mm Wood	1
CTF-15	24 Foot Cutter Main Floor	0.8mm Wood	2
CTF-16	24 Foot Cutter Main Fore Floor	0.8mm Wood	2
CTF-17	24 Foot Cutter Main Aft Floor (Lower)	0.8mm Wood	2
CTF-18	24 Foot Cutter Main Aft Floor (Upper)	0.8mm Wood	2
CTF-28	24 Foot Cutter Planking Set	0.8mm Wood	4
CTF-29	24 Foot Cutter Ribs Set	0.8mm Wood	2
CTF-30	24 Foot Cutter Thwart Knee	0.8mm Wood	64
CPE-1	18 Foot Cutter Main Floor	0.8mm Wood	1
CPE-2	18 Foot Cutter Fore Floor	0.8mm Wood	1
CPE-3	18 Foot Cutter Aft Floor (Lower)	0.8mm Wood	1
CPE-4	18 Foot Cutter Aft Floor (Upper)	0.8mm Wood	1

0.6mm Pear

136a	Outer Pattern for 136	0.6mm Wood	8
221a	Moulding for 221	0.6mm Wood	1
221b	Moulding for 221	0.6mm Wood	1
221c	Moulding for 221	0.6mm Wood	1
221d	Moulding for 221	0.6mm Wood	1
222a	Moulding for 222	0.6mm Wood	1
222b	Moulding for 222	0.6mm Wood	1
222c	Moulding for 222	0.6mm Wood	1
222d	Moulding for 222	0.6mm Wood	1
236a	Moulding for 236	0.6mm Wood	1
237a	Moulding for 237	0.6mm Wood	1
238a	Moulding for 238	0.6mm Wood	1
239a	Moulding for 239	0.6mm Wood	1
240a	Moulding for 240	0.6mm Wood	1
241a	Moulding for 241	0.6mm Wood	1
242a	Moulding for 242	0.6mm Wood	1
243a	Moulding for 243	0.6mm Wood	1
244a	Moulding for 244	0.6mm Wood	1
245a	Moulding for 245	0.6mm Wood	1
254a	Moulding for 254	0.6mm Wood	1
255a	Moulding for 255	0.6mm Wood	1
483	Poop Screen Bulkhead (Outer Front)	0.6mm Wood	1
484	Poop Screen Bulkhead (Outer Rear)	0.6mm Wood	1
485	Poop Screen Bulkhead (Inner Front)	0.6mm Wood	1
486	Poop Screen Bulkhead (Inner Rear)	0.6mm Wood	1
487	Column for 483	0.6mm Wood	1
488	Column for 483	0.6mm Wood	1
489	Column for 483	0.6mm Wood	1
490	Column for 483	0.6mm Wood	1
491	Column for 483	0.6mm Wood	1
492	Column for 483	0.6mm Wood	1
493	Aft Cabin Bulwark (Left)	0.6mm Wood	1
494	Aft Cabin Bulwark (Right)	0.6mm Wood	1
495	Cabin Bulkhead Partition (Left)	0.6mm Wood	1
496	Cabin Bulkhead Partition (Right)	0.6mm Wood	1
497	Poop Gangway Step	0.6mm Wood	2
498	Quarterdeck Companion Hatch Door	0.6mm Wood	2
499	Quarterdeck Barricade Upper Rail (Lower)	0.6mm Wood	1
500	Quarterdeck Barricade Upper Rail (Upper)	0.6mm Wood	1
501	Bow Rail Finishing Strip (Right)	0.6mm Wood	1
502	Bow Rail Finishing Strip (Left)	0.6mm Wood	1
503	Bow Rail Finishing Strip (Right)	0.6mm Wood	1
504	Bow Rail Finishing Strip (Left)	0.6mm Wood	1
505	Bow Rail Finishing Strip (Right)	0.6mm Wood	1
506	Bow Rail Finishing Strip (Left)	0.6mm Wood	1
507	Bow Rail Finishing Strip (Right)	0.6mm Wood	1
508	Bow Rail Finishing Strip (Left)	0.6mm Wood	1
509	Bow Seat of Ease Top	0.6mm Wood	2
510	Cathead Knee Pattern	0.6mm Wood	12
511	Stern Window Inner Panel Strip	0.6mm Wood	6
512	Lower Quarter Gallery Rail	0.6mm Wood	6
513	Quarterdeck Bulkhead Panelling (Right)	0.6mm Wood	1
514	Quarterdeck Bulkhead Panelling (Middle)	0.6mm Wood	1
515	Quarterdeck Bulkhead Panelling (Left)	0.6mm Wood	1
516	Hull Side Step Support	0.6mm Wood	25
517	Hull Side Step	0.6mm Wood	24
518	Quarter Gallery Window Fascia (Inner)	0.6mm Wood	2
519	Orlop Ladder Outer Side (Left)	0.6mm Wood	1
520	Orlop Ladder Outer Side (Right)	0.6mm Wood	1
521	Orlop Ladder Inner Side	0.6mm Wood	2
522	Orlop Ladder Step	0.6mm Wood	9
523	Mid Gun Deck Ladder Outer Side (Left)	0.6mm Wood	1
524	Mid Gun Deck Ladder Outer Side (Right)	0.6mm Wood	1
525	Mid Gun Deck Ladder Inner Side	0.6mm Wood	2

526	Mid Gun Deck Ladder Step	0.6mm Wood		9
527	Aft Gun Deck Ladder Outer Side (Left)	0.6mm Wood		1
528	Aft Gun Deck Ladder Outer Side (Right)	0.6mm Wood		1
529	Aft Gun Deck Ladder Inner Side	0.6mm Wood		2
530	Aft Gun Deck Ladder Step	0.6mm Wood		9
531	Gangway Ladder Outer Side (Left)	0.6mm Wood		2
532	Gangway Deck Ladder Outer Side (Right)	0.6mm Wood		2
533	Gangway Deck Ladder Inner Side	0.6mm Wood		4
534	Gangway Deck Ladder Step	0.6mm Wood		15
535	Poop Ladder Outer Side (Left)	0.6mm Wood		2
536	Poop Deck Ladder Outer Side (Right)	0.6mm Wood		2
537	Poop Ladder Inner Side	0.6mm Wood		4
538	Poop Deck Ladder Step	0.6mm Wood		16
539	Quarterdeck Ladder Outer Side (Left)	0.6mm Wood		1
540	Quarterdeck Ladder Outer Side (Right)	0.6mm Wood		1
541	Quarterdeck Ladder Inner Side	0.6mm Wood		2
542	Quarterdeck Deck Ladder Step	0.6mm Wood		9
543	Fore Gun Deck Ladder Outer Side (Left)	0.6mm Wood		1
544	Fore Gun Deck Ladder Outer Side (Right)	0.6mm Wood		1
545	Fore Gun Deck Ladder Inner Side& Centre	0.6mm Wood		3
546	Fore Gun Deck Deck Ladder Step	0.6mm Wood		9
547	Bow Gun Port 1 Lining (Sides)	0.6mm Wood		4
548	Bow Gun Port 1 Lining (Top & Bottom)	0.6mm Wood		4
549	Gun Port 11 Lining (Sides)	0.6mm Wood		4
550	Gun Port 11 Lining (Top & Bottom)	0.6mm Wood		4
551	Gun Port 12 Lining (Sides)	0.6mm Wood		4
552	Gun Port 12 Lining (Top & Bottom)	0.6mm Wood		4
553	Gun Port 13 Lining (Sides)	0.6mm Wood		4
554	Gun Port 13 Lining (Top & Bottom)	0.6mm Wood		4
555	Fore Channel Top & Bottom	0.6mm Wood		4
556	Main Channel Top & Bottom	0.6mm Wood		4
557	Mizzen Channel Top & Bottom	0.6mm Wood		4
558	Main Stool Top & Bottom	0.6mm Wood		4
559	Mizzen Stool Top & Bottom	0.6mm Wood		4
560	Stern Fascia Column (Left)	0.6mm Wood		1
561	Stern Fascia Column	0.6mm Wood		1
562	Stern Fascia Column	0.6mm Wood		1
563	Stern Fascia Column	0.6mm Wood		1
564	Stern Fascia Column	0.6mm Wood		1
565	Stern Fascia Column	0.6mm Wood		1
567	Stern Fascia Column	0.6mm Wood		1
567	Stern Fascia Column (Right)	0.6mm Wood		1
568	Quarter gallery Lower Finishing Inner Pattern	0.6mm Wood		2
569	Quarter gallery Lower Finishing Outer Pattern	0.6mm Wood		2
570	Lower Stern Counter (Outer)	0.6mm Wood		1
571	Stern Fascia (Inner)	0.6mm Wood		1
572	Upper Stern Counter (Outer)	0.6mm Wood		1
573	Quarter Gallery Column (Left Front)	0.6mm Wood	1	
574	Quarter Gallery Column (Left)	0.6mm Wood	1	
575	Quarter Gallery Column (Left)	0.6mm Wood	1	
576	Quarter Gallery Column (Left Rear)	0.6mm Wood	1	
577	Quarter Gallery Column (Right Front)	0.6mm Wood	1	
578	Quarter Gallery Column (Right)	0.6mm Wood	1	
579	Quarter Gallery Column (Right)	0.6mm Wood	1	
580	Quarter Gallery Column (Right Rear)	0.6mm Wood	1	
581	Poop Planksheer	0.6mm Wood		2
C20	18 Foot Cutter Thwart Knee	0.6mm Wood		8
C22	18 Foot Cutter Rudder	0.6mm Wood		1
C23	18 Foot Cutter Plank Set	0.6mm Wood		2
C24	18 Foot Cutter Rib Set	0.6mm Wood		1
C25	18 Foot Cutter Seat Support Set	0.6mm Wood		1
C26	18 Foot Cutter Oar	0.6mm Wood		6
M-1	Mizzen Mast Head batten	0.6mm Wood		8
M-2	Foremast Head batten	0.6mm Wood		8
M-3	Main Mast Head batten	0.6mm Wood		8
M-80	Fore and Main Topmast Cheek Block Cover	0.6mm Wood		4
M-83	Yard Parrel Rib	0.6mm Wood		60

0.8mm Plywood

D-1	Gun Deck Pattern (Left)	0.8mm Ply	1
D-2	Gun Deck Pattern (Right)	0.8mm Ply	1
D-3	Upper Deck Pattern (Left)	0.8mm Ply	1
D-4	Upper Deck Pattern (Right)	0.8mm Ply	1
D-5	Lower Deck Pattern (Left)	0.8mm Ply	1
D-6	Poop Deck Pattern	0.8mm Ply	1
D-7	Forecastle Deck Pattern	0.8mm Ply	1
Pb1	Poop Temporary Cross Beam Key	0.8mm Ply	10
T-DB1	Alignment key for T-DB	0.8mm Ply	4

4mm Clear Acetate

AS-1	Front Cradle	4mm Clear Acetate	1
AS-2	Rear Cradle	4mm Clear Acetate	1
AS-3	Cradle Spacer Beam	4mm Clear Acetate	2
AS-4	Cradle Nameplate Support	4mm Clear Acetate	2

Black/Gold Lasermax 1.5mm

Nameplate		Blk/Gold Lasermax 1.5mm	2

0.5mm Clear Acetate

PE25G	Stern Window	0.5mm Clear Acetate	1
PE26G	Stern Window	0.5mm Clear Acetate	1
PE27G	Stern Window	0.5mm Clear Acetate	1
PE28G	Stern Window	0.5mm Clear Acetate	1
PE29G	Stern Window	0.5mm Clear Acetate	1
PE30G	Stern Window	0.5mm Clear Acetate	1
PE31G	Stern Window	0.5mm Clear Acetate	1
PE26aG	Stern Window (Upper Shutter)	0.5mm Clear Acetate	1
PE27aG	Stern Window (Upper Shutter)	0.5mm Clear Acetate	1
PE28aG	Stern Window (Upper Shutter)	0.5mm Clear Acetate	1
PE29aG	Stern Window (Upper Shutter)	0.5mm Clear Acetate	1
PE30aG	Stern Window (Upper Shutter)	0.5mm Clear Acetate	1
PE26bG	Stern Window (Optional Lower)	0.5mm Clear Acetate	1
PE27bG	Stern Window (Optional Lower)	0.5mm Clear Acetate	1
PE28bG	Stern Window (Optional Lower)	0.5mm Clear Acetate	1
PE29bG	Stern Window (Optional Lower)	0.5mm Clear Acetate	1
PE30bG	Stern Window (Optional Lower)	0.5mm Clear Acetate	1
PE32G	Quarter gallery Window (Right)	0.5mm Clear Acetate	1
PE33G	Quarter gallery Window (Right)	0.5mm Clear Acetate	1
PE34G	Quarter gallery Window (Right)	0.5mm Clear Acetate	1
PE35G	Quarter gallery Window (Left)	0.5mm Clear Acetate	1
PE36G	Quarter gallery Window (Left)	0.5mm Clear Acetate	1
PE37G	Quarter gallery Window (Left)	0.5mm Clear Acetate	1
PE38G	Poop Screen Bulkhead Window	0.5mm Clear Acetate	1
PE39G	Poop Screen Bulkhead Window	0.5mm Clear Acetate	1
PE40G	Poop Screen Bulkhead Window	0.5mm Clear Acetate	1
PE41G	Poop Screen Bulkhead Window	0.5mm Clear Acetate	1
PE42G	Poop Screen Bulkhead Window	0.5mm Clear Acetate	1
PE43G	Poop Screen Bulkhead Window	0.5mm Clear Acetate	1
PE44G	Poop Screen Bulkhead Window	0.5mm Clear Acetate	1
PE45G	Poop Skylight Window	0.5mm Clear Acetate	10

0.6mm PolyBak

PB-1	Bow Trail Board Decoration (Left)	0.6mm PolyBak	1
PB-2	Bow Trail Board Decoration (Right)	0.6mm PolyBak	1
PB-3	Stern Decoration (Right)	0.6mm PolyBak	1
PB-4	Stern Decoration (Left)	0.6mm PolyBak	1
PB-5	Stern Tafferel Edging Decoration (Right)	0.6mm PolyBak	1
PB-6	Stern Tafferel Edging Decoration (Left)	0.6mm PolyBak	1
PB-7	Stern Cove Decoration	0.6mm PolyBak	1
PB-8	Stern Tafferel Edging Decoration (Lower)	0.6mm PolyBak	1
PB-9	Stern Tafferel Main Decoration	0.6mm PolyBak	1
PB-10	Stern Tafferel Edging Decoration (Upper)	0.6mm PolyBak	1

0.2mm Black Card

BC-A	Quarter gallery Upper Finishing Tile	0.2mm Black card	8
R1	Rudder Gudgeon (Lower)	0.2mm Black card	2
R2	Rudder Gudgeon	0.2mm Black card	2
R3	Rudder Gudgeon	0.2mm Black card	2
R4	Rudder Gudgeon	0.2mm Black card	2
R5	Rudder Gudgeon	0.2mm Black card	2
R6	Rudder Gudgeon (Upper)	0.2mm Black card	2
R7	Rudder Pintle (Lower)	0.2mm Black card	2
R8	Rudder Pintle	0.2mm Black card	2
R9	Rudder Pintle	0.2mm Black card	2
R10	Rudder Pintle	0.2mm Black card	2
R11	Rudder Pintle	0.2mm Black card	2
R12	Rudder Pintle (Upper)	0.2mm Black card	2

0.2mm White Card

WC-A	Great Cabin Chequered Floor	0.2mm White card	1

0.8mm Maple (OPTIONAL)

MD-2	Gun Deck Pattern	0.8mm Maple	1
MD-3	Forecastle Deck Pattern	0.8mm Maple	1
MD3a	Mid Deck Gangway (Left)	0.8mm Maple	1
MD3b	Mid Deck Gangway (Right)	0.8mm Maple	1
MD3c	Quarterdeck	0.8mm Maple	1
MD-3d	Upper Deck Pattern Insert (Forecastle Left)	0.8mm Maple	1
MD-3e	Upper Deck Pattern Insert (Forecastle Right)	0.8mm Maple	1
MD-3f	Upper Deck Pattern Insert (Quarterdeck Left)	0.8mm Maple	1
MD-3g	Upper Deck Pattern Insert (Quarterdeck Right)	0.8mm Maple	1
MD-4	Stern Coach Deck	0.8mm Maple	1
MD-5	Stern Bed Place Deck	0.8mm Maple	1
MD-6	Stern Great Cabin Deck	0.8mm Maple	1
MD-7	Poop Deck	0.8mm Maple	1
MD-7a	Poop Deck Pattern Insert (Left)	0.8mm Maple	1
MD-7b	Poop Deck Pattern Insert (Right)	0.8mm Maple	1

0.4mm Photo-Etched Brass – Sheet 1

PE-1	Standard Eyebolt	0.4mm PE	544
PE-2	External Hull Eyebolt	0.4mm PE	35
PE-3	7mm Deadeye Strop	0.4mm PE	44
PE-4	Chainplate Upper Link (11.5mm)	0.4mm PE	60
PE-5	Chainplate Middle Link (13.7mm)	0.4mm PE	50
PE-6	Chainplate Preventer Link	0.4mm PE	48
PE-7	5mm Deadeye Strop	0.4mm PE	20
PE-8	Chainplate Middle Link (12.8mm)	0.4mm PE	24
PE-9	Chainplate Upper Link (9.6mm)	0.4mm PE	20
PE-10	3.5mm Deadeye Strop	0.4mm PE	20
PE-11	Chainplate Middle Link (10.5mm)	0.4mm PE	20
PE-12	5mm Futtock Strop	0.4mm PE	24
PE-13	3.5mm Futtock Strop	0.4mm PE	12
PE-14	Main Lower Stunsail Boom Front Bracket	0.4mm PE	2
PE-15	Futtock Hook	0.4mm PE	31
PE-16	Fore Euphroe Block	0.4mm PE	1
PE-17	Main Euphroe Block	0.4mm PE	1
PE-18	Mizzen Euphroe Block	0.4mm PE	1
PE-88	Rigging Hook	0.4mm PE	64
CPE-5	18 Foot Cutter Mast Bracket	0.4mm PE	1
CPE-6	18 Foot Cutter Rudder Facing (Right)	0.4mm PE	1
CPE-7	18 Foot Cutter Rudder Facing (Left)	0.4mm PE	1
PPE/4	32 Foot Pinnace Rudder Facing (Right)	0.4mm PE	1
PPE/5	32 Foot Pinnace Rudder Facing (Left)	0.4mm PE	1
PPE/6	32 Foot Pinnace Rowlock	0.4mm PE	20

0.4mm Photo-Etched Brass – Sheet 2

PE-19	Yard Footrope Stirrup	0.4mm PE	82
PE-20	Flag Locker Rear panel (Left)	0.4mm PE	1
PE-21	Flag Locker Rear panel (Right)	0.4mm PE	1
PE-22	Flag Locker Horizontal panel	0.4mm PE	6
PE-23	Flag Locker Vertical panel	0.4mm PE	10
PE-24	42 Pounder Carronade Eyebolt Set	0.4mm PE	24
PE-25	Stern Window Frame	0.4mm PE	1
PE-26	Stern Window Frame	0.4mm PE	1
PE-27	Stern Window Frame	0.4mm PE	1
PE-28	Stern Window Frame	0.4mm PE	1
PE-29	Stern Window Frame	0.4mm PE	1
PE-30	Stern Window Frame	0.4mm PE	1
PE-31	Stern Window Frame	0.4mm PE	1
PE-26a	Stern Window Frame (Upper)	0.4mm PE	1
PE-27a	Stern Window Frame (Upper)	0.4mm PE	1
PE-28a	Stern Window Frame (Upper)	0.4mm PE	1
PE-29a	Stern Window Frame (Upper)	0.4mm PE	1
PE-30a	Stern Window Frame (Upper)	0.4mm PE	1
PE-26b	Stern Window Frame (Optional Open)	0.4mm PE	1
PE-27b	Stern Window Frame (Optional Open)	0.4mm PE	1
PE-28b	Stern Window Frame (Optional Open)	0.4mm PE	1
PE-29b	Stern Window Frame (Optional Open)	0.4mm PE	1
PE-30b	Stern Window Frame (Optional Open)	0.4mm PE	1
PE-32	Quarter Gallery Window Frame (Right)	0.4mm PE	1
PE-33	Quarter Gallery Window Frame (Right)	0.4mm PE	1
PE-34	Quarter Gallery Window Frame (Right)	0.4mm PE	1
PE-35	Quarter Gallery Window Frame (Left)	0.4mm PE	1
PE-36	Quarter Gallery Window Frame (Left)	0.4mm PE	1
PE-37	Quarter Gallery Window Frame (Left)	0.4mm PE	1
PE-38	Poop Screen Bulkhead Window Frame	0.4mm PE	2
PE-39	Poop Screen Bulkhead Window Frame	0.4mm PE	2
PE-40	Poop Screen Bulkhead Window Frame	0.4mm PE	2
PE-41	Poop Screen Bulkhead Window Frame	0.4mm PE	2
PE-42	Poop Screen Bulkhead Window Frame	0.4mm PE	2
PE-43	Poop Screen Bulkhead Window Frame	0.4mm PE	2
PE-44	Poop Screen Bulkhead Window Frame	0.4mm PE	2
PE-45	Poop Skylight Window Frame	0.4mm PE	10
PE-46	Stern Lantern Bracket	0.4mm PE	2
PE-47	Gun Port Lid Hinge (Long)	0.4mm PE	24
PE-48	Gun Port Lid Hinge (Short)	0.4mm PE	12
PE-49	Quarterdeck Companion Hatch Hinge	0.4mm PE	6
PE-50	Ship's Wheel Main Body	0.4mm PE	2
PE-51	Ship's Wheel Outer Rim	0.4mm PE	2
PE-52	Ship's Wheel Inner Rim	0.4mm PE	2
PE-53	Hand Pump Centre Bracket	0.4mm PE	6
PE-54	Hand Pump Outer Bracket	0.4mm PE	6
PE-55	Hand Pump Rod	0.4mm PE	4
CPE-8	Kedge Anchor Main Body	0.4mm PE	4
CPE-8a	Kedge Anchor Arm	0.4mm PE	4
CPE-10	Boat Hook	0.4mm PE	6

0.4mm Photo-Etched Brass – Sheet 3 (Brodie Stove)

BS-1	Suspension Arm for Spit and Chains	0.4mm PE	2
BS-2	Handle (3 large 3 small)	0.4mm PE	6
BS-3	Eyebolt	0.4mm PE	6
BS-4	Eyebolt Ring	0.4mm PE	6

0.6mm Photo-Etched Brass

PE-56	Mid Deck Gangway Hammock Crane	0.6mm PE	18
PE-56a	Mid Deck Hammock Crane with Eyebolt	0.6mm PE	4
PE-57	Quarterdeck Bulwark Hammock Crane	0.6mm PE	32
PE-58	Quarterdeck Barricade Hammock Crane	0.6mm PE	10
PE-59	Stanchion	0.6mm PE	40
PE-60	Poop Stanchion (Fore)	0.6mm PE	2
PE-61	Poop Stanchion	0.6mm PE	2
PE-62	Poop Stanchion	0.6mm PE	2
PE-63	Poop Stanchion	0.6mm PE	2
PE-64	Poop Stanchion	0.6mm PE	2
PE-65	Poop Stanchion	0.6mm PE	2
PE-66	Poop Stanchion	0.6mm PE	2
PE-67	Poop Stanchion	0.6mm PE	2
PE-68	Poop Stanchion (Aft)	0.6mm PE	2

PE-69	Lower Top Stanchion	0.6mm PE	14
PE-70	Belaying Pin	0.6mm PE	98
PE-71	Ship's Bell crank	0.6mm PE	1
PE-72	Rudder Emergency Chain Bracket	0.6mm PE	1
PE-73	Anchor Ring	0.6mm PE	3
PE-75	Lower Stunsail Boom Iron (Outer)	0.6mm PE	4
PE-77	Upper Stunsail Boom Iron (Outer)	0.6mm PE	4
PE-78	Lower Stunsail Boom Iron (Inner)	0.6mm PE	5
PE-79	Upper Stunsail Boom Iron (Inner)	0.6mm PE	5
PE-80	Lower Stunsail Boom Iron (Main Channel)	0.6mm PE	2
PE-81	Lower Stunsail Boom Gooseneck	0.6mm PE	2

0.25mm Photo-Etched Brass Sheet 1

PE-74	Lower Stunsail Boom Iron Cap	0.25mm PE	4
PE-76	Upper Stunsail Boom Iron Cap	0.25mm PE	4
PE-82	Bow Horse Shoe	0.25mm PE	2
PE-83	Stern Fish Plate	0.25mm PE	2
PE-84	Binnacle Compass	0.25mm PE	1
PE-85	Cannon Flintlock	0.25mm PE	27
PE-86	Screen Bulkhead Door Hinge	0.25mm PE	20
PE-87	Poop Skylight Door Hinge	0.25mm PE	6
LPE/4	26 Foot Launch Rudder (Right)	0.25mm PE	1
LPE/5	26 Foot Launch Rudder (Left)	0.25mm PE	1
LPE/6	26 Foot Launch Mast Strap/Bracket	0.25mm PE	1

0.25mm Photo-Etched Brass Sheet 2 (Brodie Stove)

BS-4	Upper Chain Sheave	0.25mm PE	6
BS-5	Lower Chain Sheave	0.25mm PE	6
BS-6	Long Chain	0.25mm PE	1
BS-7	Short Chain	0.25mm PE	1
BS-8	Cock Tap Handle	0.25mm PE	4
BS-9	Adjustable Baffle Plate	0.25mm PE	1

Fittings

F-1	Figurehead	3D Print Resin	1
F-2	Lantern Set (17mm)	3D Print Resin	2
F-3	Brodie Stove Main Body	3D Print Resin	1
F-4	Brodie Stove Condenser	3D Print Resin	1
F-5	Brodie Stove Drip Tray	3D Print Resin	1
F-6	Brodie Stove Funnel	3D Print Resin	1
F-7	Belfry Housing	3D Print Resin	1
F-8	Rudder Bracket	3D Print Resin	8
F-9	Anchor	3D Print Resin	4
F-10	24-Pounder Cannon Barrel (Armstrong)	3D Print Resin	26
F-11	12-Pounder Long Cannon Barrel (Blomefield)	3D Print Resin	2
F-12	42-Pounder Carronade Barrel	3D Print Resin	18
F-13	42-Pounder Carronade Wheel	3D Print Resin	18
F-14	Captain Pellew Figure	3D Print Resin	1
F-15	Lieutenant Hornblower Figure (Optional)	3D Print Resin	1
F-70	Quarter Gallery Lower Drop (Right)	3D Print Resin	1
F-71	Quarter Gallery Lower Drop (Left)	3D Print Resin	1
F-16	Ship's Bell	Brass	1
F-17	Binnacle Chimney	Brass	1
F-18	Small pin	Brass	500
F-19	Rudder Chain – 300mm Approx.	Metal	1
F-20	Copper Tape	Copper	1
F-21	2mm Diameter Black Cannon Ball	Acrylic	20
F-22	2.5mm Diameter Black Cannon Ball	Acrylic	200
F-23	1mm Diameter brass rodx250mm long (Approx.)	Metal	1
F-24	0.7mm Diameter brass rodx250mm long (Approx.)	Metal	1
F-25	Large mouse bead (Lower mast stays)	Plastic	6
F-26	Small mouse bead (Upper mast stays)	Plastic	6
F-27	Black Cartridge paper (For anchor & Mast Straps)	Paper	1
F-28	2.5mm Thimble Block	Wood	20
F-29	3.5mm Thimble Block	Wood	20
F-30	7mm Deadeye	Wood	88
F-31	5mm Deadeye	Wood	120
F-32	3mm Deadeye	Wood	40
F-33	2mm Single block	Wood	10
F-34	3mm Single block	Wood	140
F-35	4mm Single Block	Wood	30
F-36	5mm Single block	Wood	80
F-37	6mm Single Block	Wood	20
F-38	7mm Single block	Wood	20
F-39	4mm Double block	Wood	20
F-40	6mm Double block	Wood	20
F-40a	7mm Triple block	Wood	10
F-41	Parrel bead	Plastic	90
F-42	0.1mm Diameter natural thread		200m
F-43	0.25mm Diameter natural thread		100m
F-44	0.5mm Diameter natural thread		40m
F-45	0.75mm Diameter natural thread		20m
F-46	Copper Tape for Copper Bottom		50m
F-47	0.25mm Diameter black thread		20m
F-48	0.5mm Diameter black thread		20m
F-49	0.75mm Diameter black thread		20m
F-50	1mm Diameter black thread		20m
F-51	1.3mm Diameter black thread (Fore and Main Shrouds)		20m
F-51ms	1.3mm Diameter black thread (Mast Stay)		2m
F-52	1.6mm Diameter black thread (Lower Mast Stay)		2m
F-53	2.5mm Diameter natural thread (Anchor hawse)		0.5m
F-80	Cabin Table	3D print Resin	1
F-81	Cabin Chair	3D print Resin	2

Materials

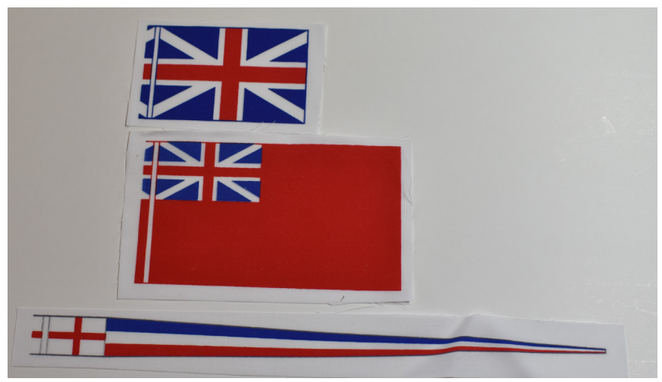
F-54	12mm Dowel x 500mm long	Wood	1
F-55	10mm Dowel x 500mm long	Wood	2
F-56	8mm Dowel x 500mm long	Wood	5
F-57	6mm Dowel x 500mm long	Wood	6
F-58	5mm Dowel x 500mm long	Wood	3
F-59	4mm Dowel x 500mm long	Wood	6
F-60	3mm Dowel x 500mm long	Wood	6
F-61	1.5mm x 6mm x 900mm strip - Limewood	Wood	100
F-62	1mm x 5mm x 900mm strip - Second planking	Wood	100
F-63	1mm x 4mm x 900mm strip	Wood	6
F-64	1mm x 3mm x 900mm strip	Wood	6
F-65	1mm x 2mm x 900mm strip	Wood	6
F-66	1mm x 4mm x 900mm strip (Deck Planking)	Wood	100
F-67	1mm x 1mm x 900mm strip	Wood	2

Decal Sheet

F-73	INDEFATIGABLE Decal	Film	2
F-74	Bow Depth Markings	Film	2
F-75	Stern Depth Markings	Film	2

Optional Flag Set

O/VMF1	Red Ensign (120x70mm) 1707 - 1800	Cloth	1
O/VMF4	Union Flag (75x50mm) 1606 - 1800	Cloth	1
O/VMF5	Tricolour Pennant (255x17mm) 1661 - 1850	Cloth	1



Optional flag set for HMS Indefatigable

Our Ensign sets are finely screen-printed onto a high quality material which doesn't allow the inks to bleed through. The printing is on both sides of the Ensign, and is perfectly aligned. A small fold over is incorporated into the design, to fasten the item to a rope.

These are primarily designed for 1:64, although the sizes may suit other scales.

Each set contains three items:

Ensign : approx 120mm x 70mm
Union Flag: approx 75mm x 50mm
Tricolour Pennant: 17mm x 255mm

Indefatigable Laser and PE Sheet Quantities

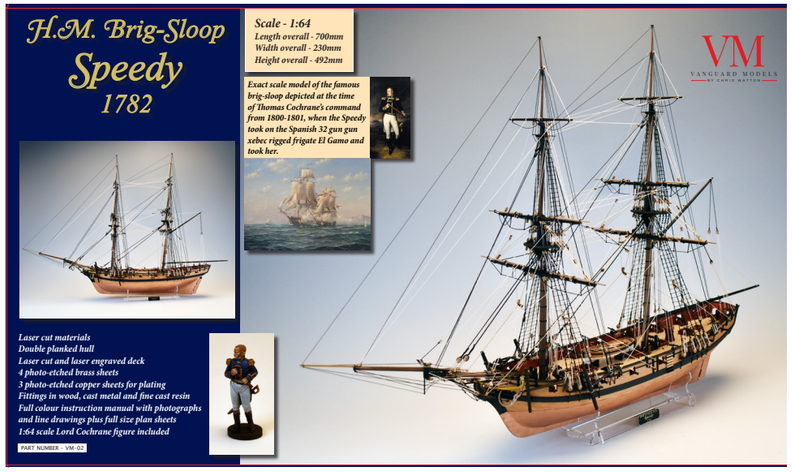
3mm MDF Laser Cut	2
4mm MDF Laser Cut	4
6mm MDF Laser Cut	1
0.5mm Clear Acetate	1
4mm Clear Acetate	1
1.5mm Black and gold nameplate	2
0.6mm Pear Wood x 500mm long	5
0.8mm Pear Wood x 600mm long	3
1mm Pear Wood x 500mm long	13
1mm Pear Wood x 250mm long	1
1mm Pear Wood x 600mm long	2
1.5mm Pear Wood	3
2mm Pear Wood	4
3mm Pear Wood	2
4mm Pear Wood	2
5mm Pear Wood	1
6mm Pear Wood	1
0.8mm Plywood	2
0.8mm Maple laser etched deck (Optional)	2
0.2mm Black Card	2
0.2mm White Card	1
Black Card	1
0.2mm Photo Etched Brass Sheet	2
0.4mm Photo Etched Brass Sheet	3
0.6mm Photo Etched Brass Sheet	1
OPTIONAL - 0.1mm Photo Etched copper plate Sheet - 2392 Plates	1

You can cut out these maps and place them in the cabin if desired

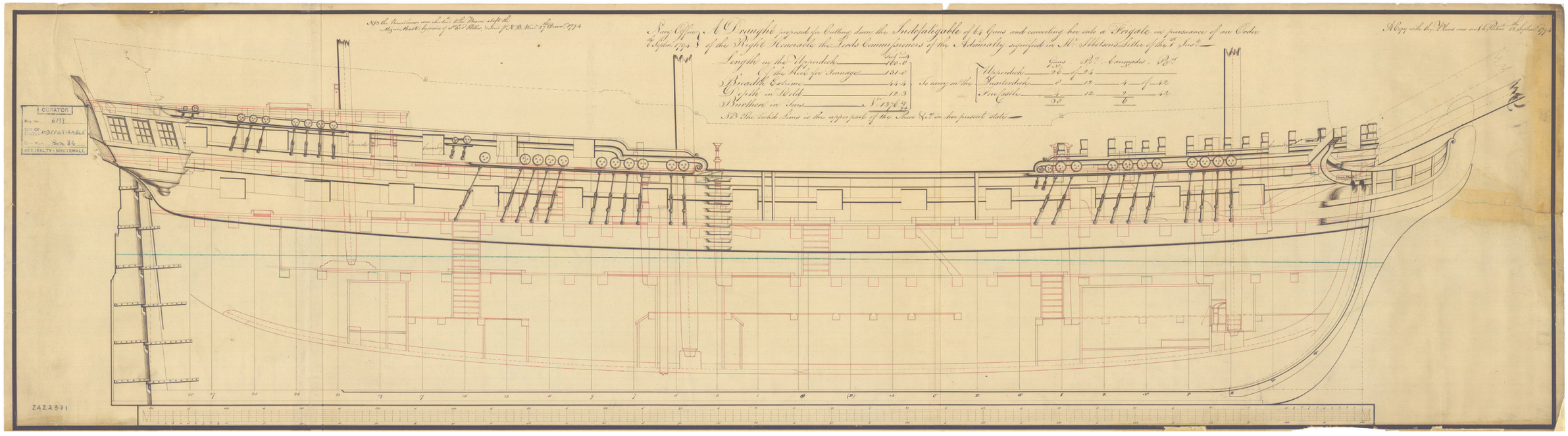
Disclaimer

In our continuing effort to improve our product we reserve the right to change plans, features, specifications, prices and materials without notice or obligation.

Wood is a natural material and whilst we try hard to attain an even colour/shade in each batch, this cannot always be guaranteed, even with the highest quality materials Vanguard Models uses. Where there is colour variation, for example, planks, try to utilise these appropriately (darker/lighter planks below the waterline etc.)



Our kit and fittings range is ever expanding, so please visit our website to see the full range of Vanguard Models kits



VANGUARD MODELS
BY CHRIS WATTON

©Vanguard Models is a subsidiary of Burncroft Limited

Registered Office:
70B, High Street
Cinderford
Gloucestershire
GL14 2SZ
UK
Tel (0044) [0]1594 824610
Registered company number – 04317996
Website - www.vanguardmodels.co.uk
Email - sales@vanguardmodels.com

HMS Indefatigable was designed and developed in the UK by Chris Watton
Finished prototype model made and photographed (including construction manual text) by James Hatch

05/02/2023