Convict Shipbuilding in Tasmania: A Historical Approach to Determining the Construction Quality of Wooden Ships in Colonial Australia

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Abstract

Van Diemen's Land (modern day Tasmania) was home to a major shipbuilding industry during the early 1800s. Tasmania's dense forests and isolated locations provided an ideal place to send convicts and use their Labour to exploit natural resources. The need for marine transportation quickly developed, and dockyards were built by free citizens in the north of Tasmania and in Hobart. The colonial government also built dockyards at convict settlements in Macquarie Harbour at Sarah Island and later at Port Arthur. Convict Labour was used at these settlements to build boats, as well as three free citizen master shipwrights. A few vessels built by citizens have been archaeologically excavated, but so far, no convict-built vessels have been located.

Convict-built vessels made up a significant portion of the fleet of ships operating in Tasmania before 1850, with a number of years accounting for over half the total tonnage of ships built. Little is known about their construction other than a select number preliminary studies from historical documentation. Previous historical methods argued that Australian-built ships were poorly constructed due to short working lives. This generalization fails to account for sailing and operating in previously uncharted waters.

By comparing working life of the ships to the historical record, a much better understanding of the vessel's build quality can be determined and compared to those of other Australian-built ships and foreign-built ships operating in Australian waters. This study uses this method to show that convict-built ships in Tasmania were in general better constructed than their contemporaries due to timber used in their construction, record of voyages showing utilization, shipwright skill and experience, and working lives of the vessels. This study provides much needed context to the ship building industry in Tasmania before 1850, as well as a method to gain a better understanding of ship construction through history.

Declaration

I, Michael E. Smith, certify that this thesis:

1. does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university

2. and the research within will not be submitted for any other future degree or diploma without the permission of Flinders University; and

3. to the best of my knowledge and belief, does not contain any material previously published or written by another person except where due reference is made in the text.

Signed:

Date: 8th November 2024

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I would like to finally thank my parents, who supported me from across the world because they knew this was where I needed to be. You have supported me in ways I can never repay, and I am eternally grateful for you sharing in my passion.

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Chapter 1: Introduction

Extensive research has been conducted on wooden coastal sailing vessels built during the colonial period in Australia, many of which were built in Van Diemen's Land (VDL) or modern-day Tasmania. Tasmania (Figure 1) was founded as a colony in 1803 as a place to send convicts from Great Britain (Nash 2003a:56). The colony's first permanent wharf was built in 1820 in Launceston, and two years later in 1822 the Sarah Island penal settlement was established. In 1824 Sarah Island (Figure 2) would have an established dockyard that utilized convict labour for gathering timber and building ships. Here, convicts would continue to build ships on behalf of the colonial government until 1848. During this time, shipbuilding operations by citizens in northern Tasmania and Hobart would grow. Several historical studies have been conducted into the shipbuilding industry in Tasmania before the 1800s, and limited research has been done into the convict settlement dockyards established by the colonial government.

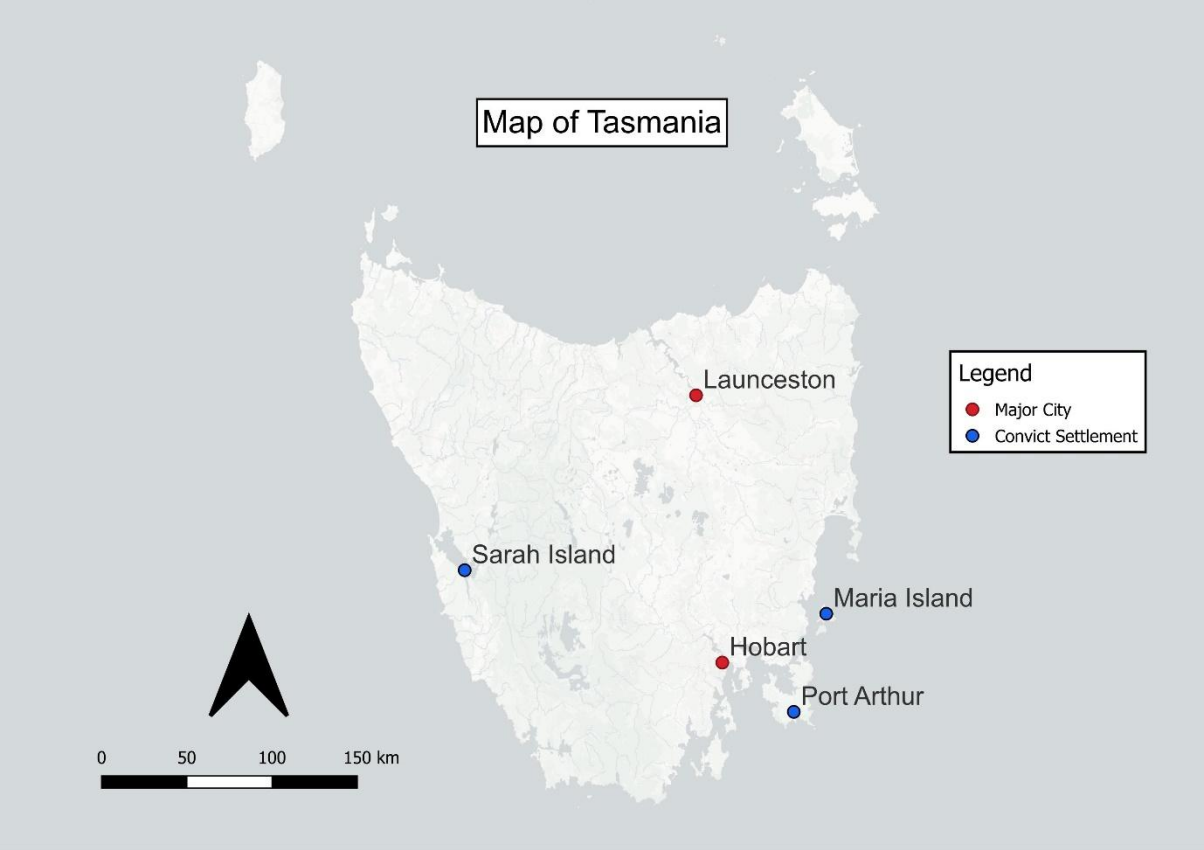

Figure 1. Map of Tasmania showing major cities and convict settlements (map by M. Smith in QGIS v3.36.3).

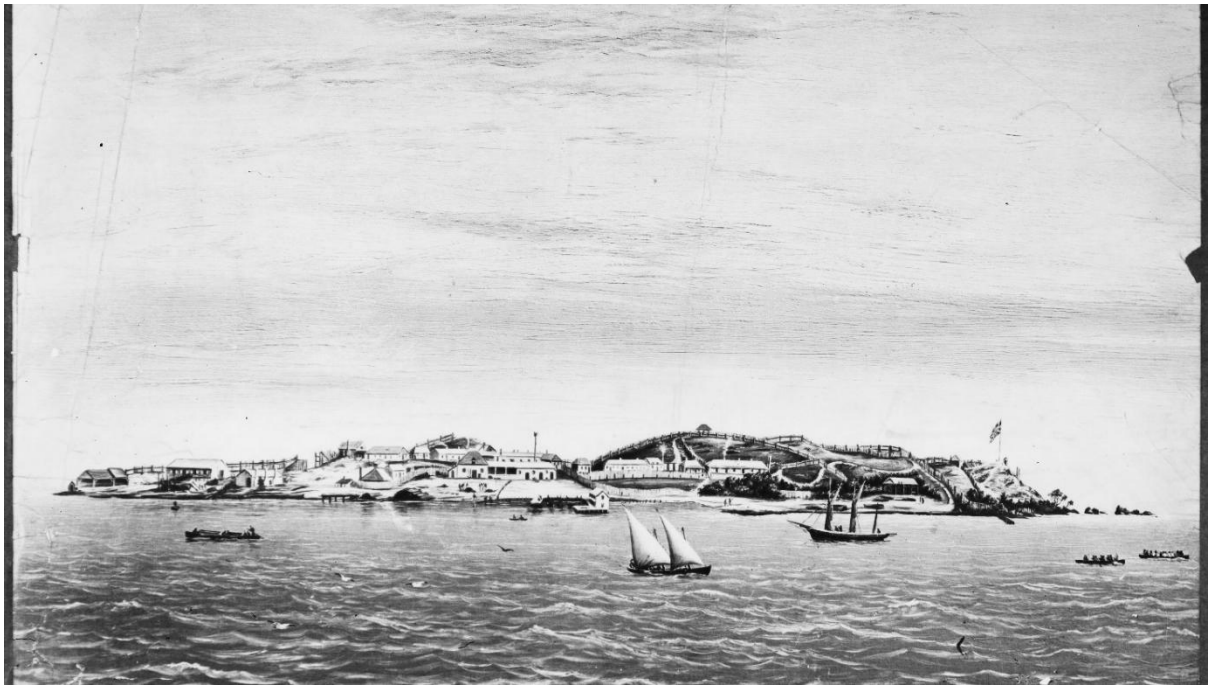

Figure 2. Painting of Sarah Island and Macquarie Harbour with dockyard on far left (Tasmanian Archives, Pretyman Family, Photographs and Glass Plate Negatives collected by E. R. Pretyman, NS1013/1/1866, 1870–1930). Reproduced with permission.

Ship construction is a key area of study in maritime archaeology. Vessel remains can give researchers insight into developments in technology, access to resources, and past people's understanding and relationship to the sea. Studies conducted on Australian-built ships have shown that despite shorter working lives, vessels constructed in Australia were well-built but sailed in unfamiliar coastlines with a lack of maritime infrastructure to mitigate wrecks. A limited number of vessels built before 1850 in Tasmania have been archaeologically studied, with the exception being vessels built by convicts, which have had limited historical research and no material archaeological study. This study will provide context for the construction quality of Tasmanian convict-built ships launched between 1824 and 1848. These vessels were built in remote locations, had access to different areas of timber and used convict Labourers as a work force. Convict-built vessels accounted for a significant portion of ships constructed in Tasmania before 1850, and a lack of archaeological and historical study leaves a significant gap in our understanding of the shipping industry in early colonial Tasmania.

This study proposes the following question:

How did the convict-built ships coming out of Port Arthur and Sarah Island compare in quality to ships built by free citizens in colonial Australia?

The following aims provide a framework to answer the research question. These aims are to:

- Outline the difference in build quality of vessels between Port Arthur, Sarah Island, and free citizen constructed ships and investigate the factors that contributed to the difference in build quality,

- Assess the lumber choice and whether it was a major factor in the build quality of convict-built ships. Were convicts given the same quality lumber as that of free citizens?
- Determine whether the convict shipwright experience contributed to the build quality of the ships. It will assess whether they learned the trade while at the penal settlements or were shipwrights already before arriving in Australia.

Overview of study

Exploring the multiple factors that contribute to the construction quality of convict-built ships will be essential in establishing a robust comparison to free citizen-built ships. The first part of this study (chapter 2) will begin by establishing the historical context of the shipbuilding industry of early colonial Tasmania. It will also give a brief history of the colonial penal system in Tasmania and the establishment of government dockyards at Sarah Island and Port Arthur. Finally, this chapter will outline studies done of timber choice in Australian ship building and provide an overview of vessels researched in this study. The historical context outlined in Chapter 2 will be essential in framing the results presented in subsequent chapters. Chapter 3 will outline the methodology used in this study. An explanation on the use of historical documents in this study as well as archaeological perspectives utilized will be outlined. There are multiple types of historical documents included in the results, each providing different points of data. In Chapter 4 this study will provide a breakdown of the results. This chapter is broken down into individual ships, leading to the results of convict-built and free citizen-built ships as a group. The discussion and conclusion of this research are included in chapter 5 and chapter 6 and are broken down into ships leading to larger conclusions on ships constructed by free citizens and convict operations.

Justification

A significant portion of the vessels coming out of Tasmania in the early 1800s were built in government dockyards by convicts. The Sarah Island dockyards produced more tonnage in ships than Hobart from 1824 to 1835, and about 45 percent of the total tonnage in Tasmania (Nash 2003b:101). These ships were built to support the whaling industry and trade (Nash 2003b:92–93). Given the total tonnage of ships built by convicts and the industries these ships supported, the contribution convicts made to the development of colonial Australia is clear. What is unclear is the quality of these ships compared to free citizen-built ships. A lack of prior research into the ships built at Port Arthur and Sarah Island demonstrates a gap in our understanding of the maritime capabilities of these ports and by extension those of their builders, convict Australians.

If a difference in build quality is present between ships at Port Arthur and Sarah Island, understanding the factors that contributed to the difference will provide much needed context to the main research question proposed above. Lumber choice is a key factor in all wooden ship constructions, and quality of lumber is key when constructing well-built ships. Additionally, experience of those building these ships is an important factor when comparing convict-built ships compared to free citizen-built ships. Previous shipwright and carpentry experience may explain differences in build quality between ships and the shipyards.

One of the few channels of evidence currently available to determine the construction quality of convict-built vessels comes from ship surveys done at Hobart. The record here is incomplete and inconsistent, with only a few archival documents describing the quality of these vessels. While this gives a general indication of quality when the ships were newly built, it does not reflect how the vessels would have held up over time or how often the vessels would have needed repairs during their working life. Convict ship builders supplied much needed ships to the growing Australian colony (Nash 2003b:83), and their contributions to government and commercial fleets deserves recognition. While there were a wide range of offences convicts were punished for, it should not detract from the contributions their Labour made to colonial Australia.

Chapter 2: History and previous studies of early colonial shipbuilding

Early historical accounts of the settlement of Tasmania focused primarily on the citizens that settled in the north, and convict settlements established in the south. The first settlements near Launceston were settled early in the 1800s, and by 1816 the colony was producing enough wheat for local consumption (Orme 1988:27). Citizen settlements in the north relied on supplies from abroad to function until they could sustain themselves through agriculture. Once this milestone was reached, the need for local shipbuilders grew as goods could now be traded locally and intrastate. The abundant resources in Tasmania attracted more settlers to the North including skilled tradesmen looking to make good money in the fledgling colony. The 1820s saw the expansion of shipbuilding south in Hobart and on the North coast of Tasmania along the Tamar River and surrounds of Launceston. The government, aware of the growth, looked to support its own operations with a dockyard at Sarah Island (Nash 2007:93).

History of early colonial Tasmanian ship building

Early days of European settlement in Australia relied heavily on maritime routes for trade. They also relied on the Labour of convicts to build out infrastructure in the new colonies. Soon after the establishment of the British colonies in Australia penal establishments were set up. Over the course of 80 years evolving policies and economic factors would shape the lives of over 165,000 convict men and women shipped to the Australian colonies (Tuffin et al. 2018:53). These convicts would be put to work and assigned to settlers for free Labour or to the Public Works Department (PWD). Convicts convicted of heinous crimes or that committed further offenses in the colonies or on the voyage to Tasmania would be moved to penal settlements like Maria Island or Port Arthur (Figure 3) to work in Labour gangs (Bullers 2007:1). Tasmania had large amounts of timber that could be used for building up the young Australian colonies. The government saw an opportunity in both the penal system and economic potential in Van Diemen's land. Settlements and outstations were established to harvest and process timber, and convicts were put to work felling trees, sawing timber and transporting lumber to settlements across Tasmania (Tuffin et al. 2020:126).

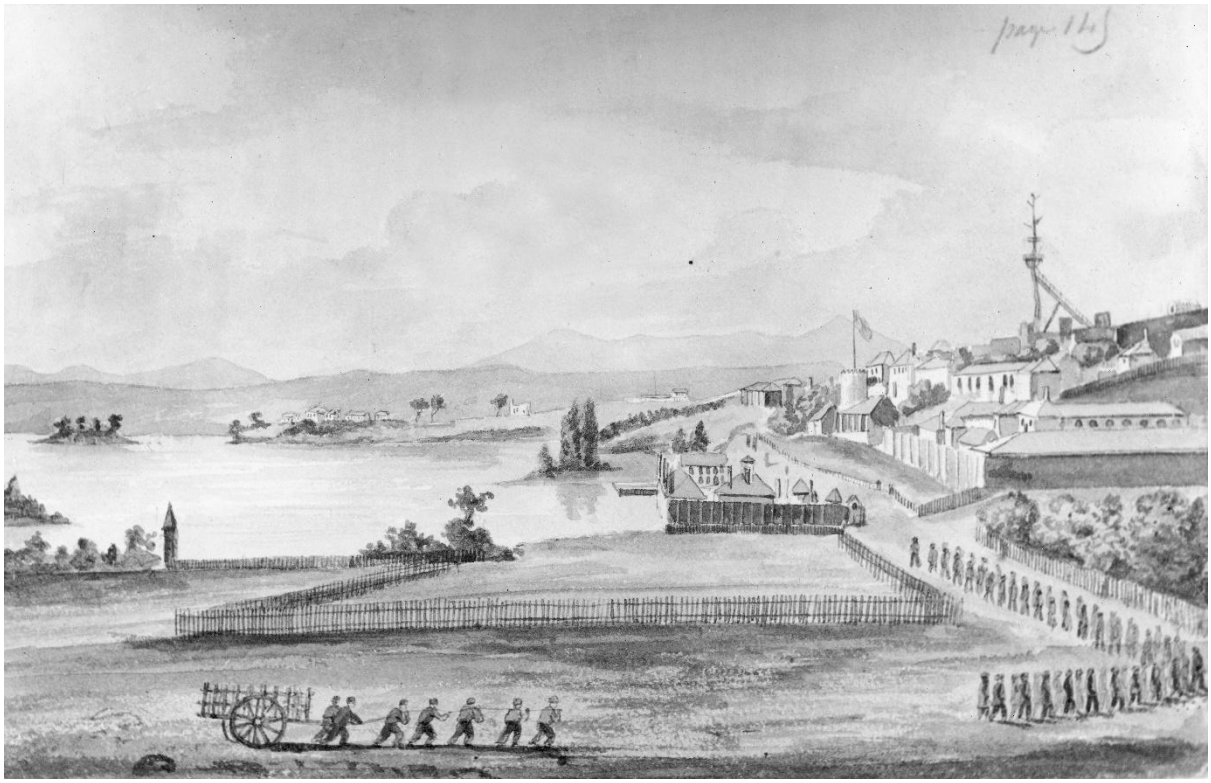

Figure 3. Sketch of Port Arthur and convict labourers (Tasmanian Archives, Unidentified Creating Agency, Miscellaneous Collection of Photographs, PH30/1/375, 1840). Reproduced with permission.

The young colonies depended on coastal trade routes to survive. Suitable ships from England seldom survived the journey across the open ocean, prompting the beginnings of a shipbuilding industry. Once the northern settlements in Tasmania had enough grain production for export, the maritime transport and local shipbuilding industry were established (Orme 1988:27). Small slips and dockyards started to be established on Tasmania's northern coast, with convict dockyards established at Sarah Island and Port Arthur in Tasmania's south. The first permanent wharf was built in Launceston in 1820. The rapid growth of the colonial economy in northern Tasmania drove up the demand for smaller coastal ketches and cutters that could navigate the coastal waters and rivers around Tasmania. The coastal shipyards saw shorter working lives as they were established to extract local resources. Once those were depleted new infrastructure was set up in new locations. Once the resources ran out, many of these early shipyards were abandoned.

The first industrial shipyard was most likely established on the Tamar River (Orme 1988:28). Respected shipwrights began to arrive in Northern Tasmania from mainland Australia and Britain, starting with Jonathan Griffiths in 1822. Griffiths brought his family with him, including John Griffiths, who opened his own shipyard in Port Sorell a few years later. Jonathan Griffiths was only 15 when he was sentenced for larceny and sent to the Australian colonies in 1788 (Chamber 2011:38). It is unclear when and where Jonathan learned to build ships, but by the early 1800s he was associated with the construction of many small vessels in New South Wales. In 1814 George Plumber would find employment at Jonathan Griffiths shipyard and would later marry his daughter Sarah. John Griffiths would work with George Plumber at Plumber's Hawkesbury River shipyard, and later in Launceston in

northern Tasmania in the 1820s. Six years after opening a shipyard in Port Sorell in 1863, John Griffiths opened another shipyard in Devonport. The Griffiths would continue running shipyards into the 1860s. Jonathan Griffiths built several noteworthy ships in 1827 including *Glory,* and *Resolution.*

The Griffiths weren't the only shipwrights that operated in Tasmania. Shipwrights seemed to socialize in the same circles with instances of shipwrights working in adjacent dockyards or for each other for one or more years. In 1826 Charles William and the Lucas brothers forged a partnership and launched the schooners *Olivia* and *Contest* within the same year (Orme 1988:29). George Plummer started a shipyard at Rosevears building mostly smaller vessels for river trade. He launched the schooner *Rebecca* in 1834 and sold it to John Batman in 1835. In 1832 John Watson left England for Tasmania with his family. Watson came from a family of shipbuilders and secured free passage for their family by working as a ship's carpenter (Robin 2011:139). Watson immediately established himself as a respectable builder when two of his vessels won races at a regatta on the Derwent River in 1834. Watson must have impressed Port Officer William Moriarty, because five weeks after the regatta Moriarty put forward Watson's name as a recommendation to take on the master shipwright position at Port Arthur. The government was in high demand for new vessels then, and Moriarty believed that 68 boys sent to Point Puer might be employed as shipbuilders while serving their sentence (Robin 2011:141). Watson would accept the master shipwright position at Port Arthur and arrive in April of that year. Watson's first call would be to oversee the construction of the dockyard at Port Arthur, which would take him six months to complete. Watson would recall his time in Port Arthur, stating that it took about 80 prisoners to support the shipbuilding activities. This would include roughly 20 boys from Point Puer learning the trade (Robin 2011:141–142). Watson's time at Port Arthur was short due to disturbing issues with the convicts. The first was a duck hunting trip in which he was almost killed by convicts attempting to escape and steal Watson's boat. The second was with his assigned apprentice assaulting his seven-year-old daughter. This prompted his resignation in 1836, just two years after arriving in Port Arthur (Robin, 2011:142). John Watson moved back to Hobart Town to continue ship building and saw success with the growing need for ships. Watson's ships continued to be known for the high quality and craftsmanship. In the 1850s an economic depression forced John to sell the shipping business and many of his assets. Watson's last ship *Tommy* launched in 1856.

John Hely opened a shipyard in 1834 on the North Esk River. He launched both *Wiena* and *Diana* in 1841 and operated the shipyard until at least 1877. John Griffith was operating in Launceston in 1850 when Hely was building ships on the Tamar River. In 1850 John Griffiths launched *Sydney Griffiths,* the largest vessel the shipyard ever built. John Hely claimed in newspapers that he personally oversaw the construction of *Sydney Griffiths.* It is possible Hely was contracted to assist with the construction of larger ships, but Griffiths also claimed to oversee every board and detail personally with every vessel (Robin 2011:38).

The 1840s saw a massive expansion of the shipping industry in Northern Tasmania (Orme 1988:29). Launceston had 13 shipwrights launching two to five ships a year between 1827 to 1849. By 1850 ten professional shipyards were operating on the Tamar and North Esk rivers with four able to produce ships over 200 tons.

The total number of ships built between 1826 and 1850 in Northern Tasmania was 80 with a total tonnage of 5482 tons (Orme 1988:29). Between 1840 and 1872 that number increased to 131 ships with a tonnage of 6,594 tons. An article published on May 13th, 1848, in *The Cornwall Chronicle* claimed the market for smaller coastal traders was overstocked, and the focus should be put into building larger tonnage vessels for trade with England (Orme 1988:29). Seemingly with this in mind, a new shipbuilding company was established in 1848 called "Launceston shipbuilding and shipping company". Their first Vessel was *Phillip Oakden* launched in 1849 (Orme 1988:30). *Phillip Oakden* wrecked on its maiden voyage coming back from England, 40 miles from its home port. This forced the company to soon wind-up operations.

History of Tasmania's penal landscape

Australia saw evolving policies designed to manage thousands of convicts. While this experiment started in 1788 and went through many changes early on, by the 1830s the penal system was established at its core (Tuffin et al. 2018:53). One of the key aspects of this system was the assignment and punishment policies. Convicts of lesser crimes that did not reoffend on their voyage to the Australian colonies would be assigned as free Labour to citizens. Those that offended on the voyage or reoffended once in the colonies would be sent to penal settlements like Macquarie Harbour or Port Arthur. In the case of Tasmania, convicts that reoffended would be placed into Labour gangs in the south (Figure 4), where the weather was unforgiving and there was an abundance of natural resources the government could profit from. Sarah Island and Macquarie Harbour operated with little mechanization, as hard Labour was seen as an inherent part of the process (Tuffin et al. 2020:130). At Sarah Island this meant trees were felled close to the shore of the Harbour, where logs were then lashed together and floated to sawpits on the island. The density of the forest at Port Arthur meant permanent sawpits could be established without building infrastructure to transport logs from further away. Over time, the forest was extracted to the degree that labourers were working up to 6 km away from the settlement.

Shortly after, a penal settlement was established on Sarah Island in Macquarie Harbour. Initially established in 1822, labour gangs were put to work felling and sawing timber. While most of the timber was sent back to Hobart resources like timber were kept for the maintenance of settlement boats and the building of small craft (Nash 2007:93). This operation quickly expanded to larger boats, and *Governor Sorell* was launched in 1824 from Sarah Island. The dockyard continued to produce vessels of up to 200 tons up until 1833, when a change in policy of the penal system consolidated convicts from multiple stations closer to Hobart (Nash 2003b:87).

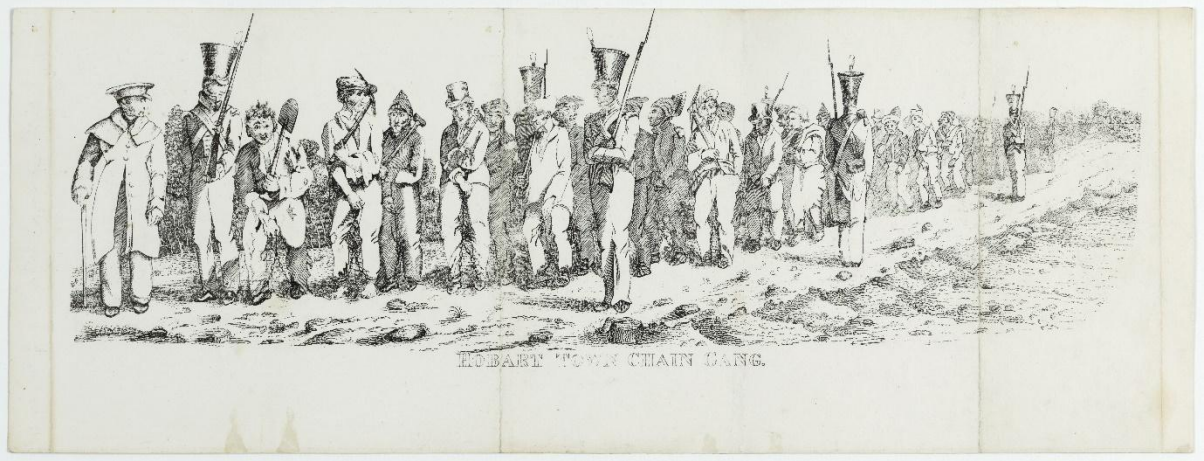

Figure 4. Engraving of Hobart Town chain gang (Tasmanian Archives, Charles Bruce, SD_ILS:177940, 1830). Reproduced with permission from the Crowther Library, State Library of Tasmania.

Sarah Island is located on the mid-west coast of Tasmania in Macquarie Harbour. Isolated by mountains and thick vegetation from the rest of settled Tasmania, the only route was a 350-kilometre ocean route around the south-western coast. First discovered by Europeans in 1815, it was quickly decided to establish a penal settlement there to collect Huon pine and to serve as a place of banishment for the worst of the convicts transported to Tasmania (Nash 2007:93). Macquarie Harbour's conditions are wet, cold and often unpredictable, making it a terrible place to work in the elements. The first ship of convicts landed at Sarah Island in 1822 with 74 prisoners. The construction of the initial settlement was difficult as the island is roughly 670 meters long by 170 meters wide, and flat ground was hard to find. A haphazard settlement was built, and convicts were immediately put to work felling timber. Most timber was sent back to Hobart so the government could make a return on its expenditure of shipping convicts. A need was immediately recognized for small boats to navigate the harbour, so several logs were kept for constructing boats and ships (Nash 2003b:84). The dockyards were operated by a government appointed master shipwright with convicts of varying experience in boat building. Dockyard workers and skilled tradesmen were given privileged treatment for their contributions to the shipbuilding industry on Sarah Island (Nash 2007:93).

Due to the small size of Sarah Island and the needs of the growing colonies, outstations were established around Macquarie Harbour for timber getting, charcoal burning, farms and brick making. This led to an extensive amount of maritime infrastructure being constructed at Sarah Island including moorings, jetties, wharves, boat sheds and slipways (Nash 2007:94). Ships were a constant presence at Macquarie Harbour while convicts were there, but the long journey from Hobart led to constant delays in communication and supplies to the settlement. Occasionally this even meant food supplies and delays in the construction of ships that required iron, copper and other materials to complete their construction.

Early penal colonies were running through the natural supply of timber by 1828, and surveys were conducted in new areas of Tasmania for suitable penal settlements. Port Arthur’s Harbour was an ideal area for timber collection, and only half a day’s sail from Hobart (Tuffin et al. 2021:15). Issues maintaining the Sarah Island and Maria Island settlements prompted the then Lieutenant Governor to devise a system

that consolidated convicts closer to Hobart and removed the need for secondary penal centres. The Tasman Peninsula provided the opportunity and resources for this new system, and the Port Arthur penal settlement was established in 1830.

Between 1830 and 1832 the numbers at Sarah Island until only a handful of people were left. In 1832 the official order was handed down to abandon Macquarie Harbour. With a cutter partially constructed on the slip, the Commandant decided to continue the vessel's construction at Sarah Island despite insistence it could be completed at Port Arthur. Delays in construction led to the official abandonment of Sarah Island in October 1832, except for master shipwright David Hoy, pilot Charles Taw, 4 soldiers and 12 convicts to finish the fit out of the brig *Fredrick* (Nash 2003b:87). After a delay in leaving the port in January 1834, six convicts took the opportunity to seize *Fredrick* and escaped to South America where the brig was abandoned.

Many of the convict boat builders from Sarah Island were sent to the Port Arthur penal settlement and were put to work immediately on repairs and small boat construction to support the settlement. A dockyard opened in 1834 to produce vessels for the government after Commandant John Mahon requested approval for timber to be used in boat building. Repairs and small boat construction again were the initial aims of the dockyard, but again quickly moved into larger craft with the launch of *Kangaroo* in 1834.

John Watson was appointed as the new shipwright of the Port Arthur dockyard and arrived in May 1834. The dockyard was found unsuitable for larger ships, and a new one was built on the southern foreshore suitable for larger vessels. Plans were drafted in 1836 by a convict draughtsman to expand the supporting infrastructure around the dockyard. These plans included a shipwright’s residence, Blacksmith’s shop, two sawpits, two docks, a boat slip and multiple sheds (Tasmanian Archives [TA], Convict Department [CON] 87/1/46,1836). While the construction was underway for the dockyard expansion, repairs and construction of small boats continued. By 1835 the dockyard was in production despite supply shortages. In 1835 the first major vessel was completed at Port Arthur; the 97-ton schooner *Eliza* (Nash 2003b:90). The dockyard workforce strength in the early years of the settlement is difficult to determine. Records do exist of six convicts skilled in boat building transported to Port Arthur in 1835 and 1836, as well as reports of apprentice shipwrights brought by John Watson. Besides these two accounts, there is little evidence to determine the size of the dockyard's workforce.

John Watson’s family left the Port Arthur dockyard in 1836 citing concerns for raising their children in the convict settlement. At this point a new shipwright was needed to take on the Port Arthur dockyard. David Hoy was recommended for the position and was the obvious choice given his success at Sarah Island (Nash 2003b:91). Hoy commenced work at the end of June 1836, starting with the completion of a three-masted barque started by John Watson. Hoy would continue to work in the dockyard until it closed in 1848. During this time, multiple vessels were repaired and constructed, and small boats were built. In 1838, two individuals representing private companies approached the Colonial-Secretary requesting the Port Arthur dockyard construct vessels for intrastate trade (Nash 2003b:91). Hoy completed the construction of the vessels, but not without discourse. Concerns were raised about a government dockyard building ships for private companies. After an inquiry the

Commissariat-General put forward recommendations to increase prices for ships constructed for private companies.

The Port Arthur settlement was not the only place convicts were building boats. Point Puer was pulled into the operation in 1841, and boat builder James Bishop was appointed to construct convict boys in the construction of small boats (Nash 2003b:93). Point Puer was used for small boats to assist timber getting operations and whaleboats for the whaling industry. The operation here was in line with the belief that teaching convicts skills would make them productive members of society on their release. As at Sarah Island, ship builders and tradesmen were given privileges and less harsh punishment than those working strictly manual labour.

The early 1840s saw an economic depression, and the government was looking for ways to cut costs. Costs at the dockyard from January to May 1843 prompted the Comptroller-General to look for suggestions on how to reduce costs at Port Arthur (Nash 2003b:94). The suggestion was to abolish the master shipwright, clerk and overseer positions if no further ships were to be constructed at the dockyard. One position of assistant shipwright was maintained for repairs and small boat construction, and David Hoy was offered the position of superintendent. The work at the Port Arthur dockyard declined for a few years until 1845 when David Hoy received instructions to construct a vessel of 180 tons. Due to the request, Hoy requested his previous pay rate and title be reinstated. His request was approved and once again Hoy began construction of a major vessel. A few more vessels were launched at Port Arthur, with the final major ship *Lucy* launching in October 1848.

The revival of the Tasmanian shipping industry in Hobart and the Northern coast in 1846 almost certainly led to the shutdown of the Port Arthur Dockyard (Nash 2003b:95). The marine department now used ships from commercial yards and had not utilized a government-built ship since *Eleanor* in 1843. The Port Arthur dockyard officially closed in 1848, with repairs and small boat construction continuing to support the settlement.

Previous studies on Australian-built ships

In depth research into the build quality of colonial Australian ships in Tasmania was started by Zuzanne Orme. Orme (1988:27) started this research by noting previous research into ships built in Tasmania was largely superficial. Orme pulled together historical records mostly from government records to provide historical context to shipyards in Tasmania. Limited research into shipbuilding techniques is included and Orme states their recommendations for future archaeology including excavation of shipyards and wrecks in northern Tasmania. This research helped spur interest in colonial built wooden vessels in Australia and timber choice in shipbuilding in Australia.

Historical accounts of Australian-built ships focused mainly on the working life of the vessel to draw conclusions about their build quality. Registered ships in Sydney between 1844–1845 averaged less than ten years working life (Jeans 1974:160). Out of 102 vessels registered in New South Whales between 1800 and 1821, 43 were almost immediately lost due to faulty construction (Hainsworth 1981:120). Hainsworth and Jeans argue that this was due to the poor construction of the ships. While this approach might be appropriate for regions with established maritime infrastructure like Britain or the United States, much of the Australian coastline was

without proper lighthouses and jetties during the early 1800s. Coroneos identifies three factors from these historical theories that may contribute to the shorter working lives of Australian ships; seamanship, unfamiliar coast and construction (Coroneos 1991:8). Their paper focuses on the construction of the vessels and the unfamiliar coast, as the skill of the sailors is difficult to ascertain from historical records. The research included the working lives of foreign-built ships from Britain and the United States of America operating in Australian waters where previous research did not. Coroneos concludes that Australian ships were cheaply built on purpose, not poorly constructed (1991:11). This hypothesis was used as a starting point in Bullers' doctoral thesis on construction quality of colonial ships in South Australia and Tasmania (2006:8). Bullers approach was to compare scantling dimensions of foreign-built ships to those of Australian-built ships. Bullers concluded that the scantlings of Australian ships were generally over built compared to their foreign counterparts (2006:61). This refutes the historical generalization that Australian ships were poorly built and helps support the hypothesis that unfamiliar coastlines and seamanship had more to do with Australian ship's short working lives.

A significant gap exists in the knowledge of convict shipbuilding activities in Tasmania, as well as what part they played in the fledgling Australian colonies growth and development. Historical research into the quality of the ship's convicts built is sparse, mostly due to the lack of archaeological evidence and the difficulty in finding archival records of these ships. While there are a small number of studies commenting on the construction of these ships, this area deserves a more in-depth study.

Free citizen-built ships

Research on Tasmanian wooden ships was scarce until work was conducted in the early Tasmanian shipbuilding industry. This research outlines the economic growth spurred by agriculture in Northern Tasmania, and the growing need for coastal ketches and cutters that could also navigate inland waterways (Orme 1988:28). Orme's research collated the history of the shipbuilding industry in Northern Tasmania to provide a timeline of shipyards built and the arrival of skilled shipwrights from abroad. These shipwrights included highly regarded shipwrights like Jonathan Griffiths. Jonathan Griffiths would teach his son John to build ships, and John would go on to open his own dockyards. John Griffiths was noted as being their own draughtsman and carpenter, with every timber personally selected by Griffiths for each vessel (Chambers 2011:38). Shipbuilding was Tasmania's first major industry (Nash 2003b:83), arising from the need to trade between colonial settlements and supported by the abundance of timber suitable for use in ship construction. Much of the research done focused on scantling dimensions of a vessel's construction, with a moderate emphasis placed on construction materials of the vessel.

Convict-built ships

In 1818 Lieutenant Governor Sorell proposed a penal settlement be established at Macquarie Harbour to extract timber and serve as a place of severe punishment for the worst offending convicts (Nash 2007:93). The penal system set up in Tasmania worked in a tiered system. Convicts would either be assigned to free citizens for Labour, work in public works or be assigned to punitive Labour in chain gangs. If the convicts behaved well, they would move on to parole or possibly be pardoned. The

penal station represented the most severe punishment for convicts, with Sarah Island and Port Arthur penal stations being amongst the most well-known.

Sarah Island and Macquarie Harbour

In 1821 Sarah Island (Figure 5) was chosen as the site for the first penal establishment in Tasmania (McGowan 1989:10). It was established under the belief that hard Labour reforms convicts, and Sarah Island provided a harsh environment, as well as large Huon pines that made for excellent ship material. Anywhere from 100 to 350 people lived on Sarah Island at any given time including men, women and children (McGowan 1989:11). Sarah Island was established in 1822, and a dockyard was operating soon after (Nash 2003b:84). Sarah Island operated from 1822 to 1834.

Image removed due to copyright.

Original available online:
https://search.informit.org/doi/epdf/10.3316/informit.761593675975757

Figure 5. Map of Sarah Island historic site (Survey of maritime infrastructure at the Sarah Island penal settlement, Nash 2007).

The research done at Sarah Island has been heavily dominated by Mike Nash, formerly of the Tasmanian Parks and Wildlife department. The publications include a conference paper that collated vast amounts of archival data to put together a brief history of convict shipbuilding in Tasmania. Nash's conference paper also gives a brief overview of shipbuilding in relation to economics and a timeline of the convict shipyards at Sarah Island and Port Arthur, as well as a list of major vessels constructed at both the Sarah Island dockyard and Port Arthur dockyard (Nash 2003b:101–105). The list at the end of Nash's report lists these vessels tonnage, date completed and basic dimensions. The research also includes correspondence about the shipwrights and other convicts involved with the shipbuilding activities. This paper provided context for the use of these sites over time, and the government's approach to the shipbuilding industry and convict Labour at the dockyards.

Nash was a part of an archaeological survey of Sarah Island in 2007. The project was a joint effort headed by the Historic Heritage Section of Tasmanian Parks Service, staff from Port Arthur Historic Site Management Authority and members of Flinders University Archaeology Department. Due to increased visitation Tasmanian Parks and Wildlife Service planned upgrades to walkways and signage on the island. An archaeological survey was needed to advise on the upgrades. Nash's 2007 paper outlines the project and discusses the broader context of maritime archaeology outside of shipwrecks (2007:102). This survey outlines the operations on the island, which were primarily logging and shipbuilding. The survey mapped out the remaining maritime infrastructure and provided insight into what the daily working lives of the convicts might have looked like. Plans of the remains drawn up during the survey include slipways, boat basins, a wharf and a dock (Nash 2007:98–99). Sawpits located near the slipways and other infrastructure outlined in the survey provide context for the overall operations and how they may have contributed to the shipbuilding industry on the island.

Sarah Island was established as a place for the worst of convicts to serve out their sentence. They were forced into labour gangs and sent around Macquarie Harbour to fell timber for the colonial government. A selection of this timber was used to build out the maritime infrastructure surveyed and recorded by Parks and Wildlife Tasmania in 2006 (Nash 2007:92). Logs were felled across Macquarie Harbour by labour gangs, lashed together and floated to the sawpits on Sarah Island. There, sawyers would cut the logs into planks, several of which were selected to be used in the construction of vessels and structures at the settlement. The structures built included wharves, a jetty, a boat basin, a dockyard and even walls for reclaimed land. While this infrastructure was being created, orders for larger ships were received and convict shipwright Newton Gray launched the first large ship out of Sarah Island in 1824 (Nash 2003b:84). Gray was sent to Sarah Island not for the severity of their crimes, but rather for their qualifications as a shipwright. Gray oversaw much of the early construction of the maritime infrastructure and boat construction at Sarah Island until 1826. The activity at the dockyard then pivoted from focusing on small boats for use in Macquarie Harbour to building two large vessels for the marine department in 1826.

In 1826, free shipwright Thomas Cole was appointed to the Sarah Island Dockyard to take over the master shipwright position. Cole never gained the respect of the Commandant who considered him lazy and less experienced than Gray. The colonial brig *Derwent* was launched by Cole in January 1827. The brig was received poorly by inspectors in Hobart, and the Commandant blamed Cole for its lacklustre reception in Hobart (Nash 2003b:85). By October 1827 a new master shipwright was appointed to Sarah Island, David Hoy. Hoy would stay on as shipwright until Sarah Island's closure in 1833.

Port Arthur

The more recent historical evidence is presented alongside archaeological data to provide a better overall picture of the lives of convicts, particularly at the Port Arthur penal settlement. Tuffin et al. (2018:51) applied this approach in one paper to draw conclusions about the convict's relationship with the landscape. Since the penal settlement was only connected to mainland Tasmania via a heavily guarded isthmus, the sea and how the convicts worked with it became a large part of this research. The Tasman peninsula was just one of the many instances in Australian history

where geography was used as a means of discipline and control (Nash et al. 2004:12). With the colonial government's initiative to extract timber for the new colony these convicts were also forced into labour gangs felling trees, many of which would be used to build small boats and ships (Tuffin et al. 2020:126). While timber was extracted in many places in southern Tasmania, once Port Arthur was established in 1830 it became the central hub for timber production in the colony.

Amongst the first wave of convicts sent to Port Arthur was boat builder Walter Simpson (Nash 2003b:88). Simpson and other skilled convicts were almost certain to have been working on small boats to assist with the establishment of the settlement and outstations for timber extraction. The ship building enterprise at Port Arthur started in 1832 as a request from Commandant John Mahon for six logs to be used for boat building. The reason was to start an operation at Port Arthur like the one at Sarah Island. Hobart Port Officer William Moriarty raised the need to expand the boat building operations of Port Arhtur in 1834, as the existing dockyard was too shallow for anything but the smallest of vessels (Nash et al. 2004:40). Moriarty recommended a master shipwright be appointed to the settlement, and in May of 1834 John Watson arrived as Port Arthur's newly appointed master shipwright. The new dockyard was constructed on the southern foreshore land, and soon wharves and dockside buildings were constructed to service the settlement. Watson built the dockyard in six months, but within two years of his taking up the position he resigned. Moriarty then recommended David Hoy take Watson's place as master shipwright, and in 1836 Hoy once again built ships for the colonial government (Nash 2003b:91).

Timber choice in Tasmanian shipbuilding

Timber choice is a major component in shipbuilding, and the quality of timber used at the government dockyards would have contributed significantly to the quality of the vessels built. Tasmania was full of quality timber for use in many applications but was particularly good for marine applications. Tasmanian blue gum was mentioned as being particularly useful for ship building (Tuffin 2020:136). While Tuffin's research is not specific to shipbuilding activities, the nature and location of the labour gangs meant ships and their construction were a major component to the successful extraction and transport of timber.

Clayton Kellie researched the importance of timber in early Australian shipbuilding, pulling historical data together and discussing the issues of researching timber in literature. A compilation of Australian timbers used in Australian ship building was first published by Clayton Kellie (2012:64–74). Kellie's work uses timber samples taken from wreck sites and historical documentation including botany reviews, Lloyd's regulation guides and historical accounts to determine their list. The list includes the timber names, ships the samples were taken from and the state and component of the ship. The paper also outlines the difficulties in identifying tree species in historic documents citing issues with naming convention and consistency of the reports. Kellie built on the research done by Rick Bullers in their master's thesis on Australian ship build quality. Bullers' research successfully challenged the notion that Australian-built ships were of a poorer construction than their British counter parts (Bullers 2006). One of the main focuses of this study was timber choice in the archaeological remains of these ships. This work was built upon by Bullers to build a predictive model for timber selection in the Tasmanian colonies (2018). Bullers proposed a predictive model for timber choice in Tasmanian

shipbuilding based off the location of shipyards and trees local to the region. Rather than use historical documentation to support the timber sampling, Bullers compares the dataset to local vegetation communities in regions where the vessels were built (2018:3). While the approach is interesting and could be useful, the sample size for each of the vessels is too small to be a solid predictive model. Historical accounts will be relied upon for this research but could be expanded upon in the future with proven predictive models. The focus of both Kellie's work on timber and Bullers' study on Australian-built colonial ship quality shifted researcher's understanding of the shipbuilding industry, as well as timber trade and use in early colonial Australia.

Port Arthur and Sarah Island dockyards

Both Port Arthur and Sarah Island will be the main study area for the research. These are where the ships in question were built, and the records of shipwrights, convicts and staff manning the penitentiaries are centred around. Secondary areas of study will be any places where the ships arrived or departed, got repairs or were sold off and bought.

Estimating a minimum distance travelled for each vessel will be essential, as well as establishing sailing routes based on historical documents where available. Further documentation on details of repairs and correspondence relating to the construction of the ships will provide much needed context around the ship's construction.

For comparison to free citizen-built ships, historical records and archaeological evidence for ships like *Water Witch* (Jeffery 1992) and *Zephyr* (Bullers 2007) will be used. Much of this research is compiled in publications by Bullers, including their doctoral thesis (2006) and publication of timber selection in Tasmania (2018). These free-citizen-built ships have been studied with build quality at the forefront of their research. By cross-referencing the archaeological evidence of these vessels and the historical accounts of convict-built ships it is possible to determine the quality of these vessels. The study will be based on Tasmanian convict-built vessels constructed between 1824 and 1848 but will include three free citizen ships for comparison as well as general data on Australian-built ships of the same time. Vessels were built at Sarah Island between 1824 and 1833, while at Port Arthur ships were built between 1834 and 1848 (Nash 2003b:83). Free citizen ships built in Tasmanian during this time will be the main comparative focus, with data on the working lives of Australian-built vessels to provide a more general comparison.

In 1830 the Port Arthur penal settlement was established, and prisoners were transferred there from Sarah Island over the course of three years (McGowan 1989:11). This was part of a larger plan to concentrate all secondary punishment closer to Hobart (Nash 2003b:87). Difficulties in getting supplies to Sarah Island moved the government towards this decision, as having ships launched but unable to be fitted out cost the government money and delayed the utility of these vessels. Good lumber and proximity to Hobart were the main reasons for choosing Port Arthur as the location for the penal settlement (Nash 2003b:88). Activities were not limited to timber and boat building and included quarrying, shell gathering for limestone, and blacksmithing (Tuffin et. Al 2018:51). From 1830 to 1846 the region around Port Arthur was the centre of timber activity (Tuffin et. al 2020:126). As soon as the penal station was established it became a hub of economic activity centred around work yards and wharves (Tuffin et. al 2021:2). Increases in the number of prisoners led to industrialization in Port Arthur (Figure 6), and eventually a dockyard

was built. The first of the prisoners sent to Port Arthur included a ship builder named Walter Simpson, and small boat repairs and construction began shortly after that (Nash 2003b:88). Vessels continued to be built and repaired at the dockyard until 1848, but a lack of historical evidence surrounding the circumstances of the dockyard in its latter years leaves the reason for the closure unknown.

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Figure 6. Map Port Arthur, Tasmania and multiple outstations for resource gathering (Landscapes of Production and Punishment, Tuffin et al. 2018).

Ships in the study

Convict-built ships

The schooner Governor Sorell *(1824–1827)*

Governor Sorell was the first major ship to be launched from Sarah Island in 1824. The two-masted schooner was most likely launched by Newton Gray, but it is not confirmed (Nash 2003b:84–85). The vessel was sold to John Watson in March of 1824. In 1827 *Governor Sorell* was wrecked at Betsey's Island and could not be refloated.

The brig Derwent *(1827–1831)*

Constructed at Sarah Island by Thomas Cole as shipwright *Derwent* was not received well by Captain Welsh, James Kelly and David Hoy (Nash 2003b:85). Construction began on *Derwent* in 1826 and was launched in 1827. However, delays in the fitting out of the vessel were delayed due to a lack of an ironworks facility at the settlement. When the ship arrived in Hobart in May 1827, Welsh, Kelly, and Hoy determined extensive work would be needed before Derwent could perform its intended purpose (TA CSO1/1/110:95).

The Commandant at Sarah Island blamed Thomas Cole for the poor construction of the ship, as Newton Gray had attempted to make changes during the vessel's construction but was unable to due to his subordinate position (Nash 2003b:85). *Derwent* made trips between Macquarie Harbour and Hobart until December 1830 when it took the first lot of convicts to Port Arthur. It was hulked in Hobart at an unknown date in 1831.

The cutter Opossum *(1827–1853)*

Opossum was launched as a 19-ton one-masted cutter in October 1827. Started by Thomas Cole, the vessel was partially complete when Newton Gray took over construction. The vessel made trips around the Tasmanian coast early in its life before making trips to major ports along Australia's southern coast. Sold in 1842 to Thomas Drew and later registered in Melbourne in 1848, *Opossum* had 15 years in service of the government before spending the rest of its life in private ownership. This ship represents one of two ships built at convict dockyards where construction was started by one shipwright and finished by another. *Opossum* wrecked at Point Nepean, Victoria in 1853 (Nash2003b:102).

The brig Tamar/Elizabeth Rebecca *(1828–1845)*

The 99-ton brig *Tamar* was launched in 1828 at Sarah Island by David Hoy. This was Hoy's first vessel launched at the government dockyard after Thomas Cole had been recalled (Nash 2003b:85). While *Tamar* was launched in December 1828, it was not completed until August 1829 due to issues with stores of copper bolts and sheathing. Unlike *Derwent*, *Tamar* was received well by surveyors in Hobart. It was noted that *Tamar* was a credit to the arts of Macquarie Harbour, with the stern ornamented with the landscape of George Town and the river (Nicholson 1983:159).

Most of *Tamar*'s voyages were between Macquarie Harbour and Hobart, carrying sawed timbers from the logging operation. In 1833, the vessel began making trips to Port Arthur after Sarah Island closed. This continued until 1844 when *Tamar* was sold out of government service to William young and was registered as *Elizabeth Rebecca* in 1844 (Nash 2003b:102). The vessel was then wrecked in Trial Harbour, South Australia on a whaling voyage in April 1845.

The sloop Charlotte *(1829–1843)*

Charlotte was launched in 1829 by David Hoy at the Sarah Island dockyard. The vessel was a 28-ton sloop that spent its early years traveling between Macquarie Harbour, Port Arthur, Maria Island, Flinders Island and the Bass Straight (Nicholson 1983: 7). *Charlotte* was sold out of government service to Richard Griffiths in 1837. Little historical information is available after this until *Charlotte's* reported loss in 1843 at Four Mile Creek, Tasmania (Nash 2003b:102).

The brig Isabella *(1830–1845)*

Built at the Sarah Island dockyards by David Hoy, *Isabella* was a 124-ton two masted brig launched in August of 1830 (Nash 2003b:102). The vessel made trips between Launceston, Port Arthur and Hobart regularly with occasional trips to Sydney until it struck a reef on the Northside of Betsey Island near the Derwent River entrance in August 1842 (Nicholson 1985:243). The vessel was refloated and repaired, then sold in 1845 to Augustus Kramer. *Isabella* soon after was wrecked and left in Port Albert, Victoria in July 1845.

The cutter Shamrock *(1832–1845)*

Shamrock was a one master 31-ton cutter launched in May of 1832 by David Hoy at the Sarah Island Dockyard (Nash 2003b:102). The vessel mostly did trips between Hobart, Launceston and Port Arthur. *Shamrock* is noted as carrying firewood, sawn timber, and prisoners (Nicholson 1985:16,73). It was sold in May 1839 to Duncan McPherson. *Shamrock* was reported wrecked in May 1845 off the Tasman Peninsula. A small amount of wreckage was found in Tunnel Bay, and a towel marked “Cecil Byron” was found, whose belongings were known to be on the vessel at the time of its disappearance (Launceston Advertiser 6 June 1843:3).

The barquentine Fanny/Wallaby *(1837–1851)*

Started by John Watson and finished by David Hoy, *Fanny* was a 284-ton three-masted barquentine launched at Port Arthur in December 1837 (Nash 2003b:104). It was the largest vessel built in the colony upon its launch. *Fanny* underwent sea trials in July 1838. It was then sold to George Watson and Alfred Garrett on October 10th and registered as *Wallaby.* Voyages mainly consisted of trips between Hobart, George Town and Port Phillip with livestock and other goods (Nicholson 1985:124–127,156). In 1839 the vessel started to make whaling trips, making 14 between 1839 and 1851 until it wrecked at Fanning Island in October of 1851.

Free citizen-built ships

The schooner Resolution *(1827–1832)*

Resolution was a 60-ton schooner built by Jonathan Griffiths in Launceston in 1827 (Nicholson 1983:131). Most of its voyages were made between Launceston, Hobart and Sydney carrying a variety of goods. The vessel was reregistered in September 1832 before being lost in November of 1832 on the way to Sydney.

The cutter Water Witch *(1835–1842)*

Water Witch was built in 1835 by John Gray in Hobart Town (Jeffery 1992:209). *Water Witch* was a 25-ton cutter-rigged single masted sailing vessel built after the government raised the size limit of vessels built in Tasmania. The vessel was built for George Watson and James Smith with little detail on its operations until it was sold to the South Australian Government in 1839 (Nicholson 1985:33). In a poor state of repair after a few years of use by the government, *Water Witch* was sailed up the Murray River until it sank on December 5th, 1842 (Jeffery 1992:211). Archaeological survey and excavations started on the wreck in 1982 with many of the artifacts and timbers being recovered for analysis.

The schooner Zephyr *(1851–1852)*

Built on Bruny Island by John Thompson in 1851, *Zephyr* (Figure 7) lived an extremely short life. On its fifth-round trip voyage between Hobart and Port Phillip Bay it wrecked, costing eight people their lives (Bullers, 2007:12). It washed ashore

where it was periodically uncovered by storms. In 2005 an archaeological survey was undertaken after a significant portion of the wreck was uncovered after a storm.

Figure 7. Photo of exposed remains of Zephyr (Bullers 2007). Photo by Sarah Quine.

Chapter 3: Methodology

Historical research conducted at Sarah Island in Macquarie Harbour and Port Arthur on convict-built ships has provided insight into the shipbuilding activities at these penal settlements and the impact these vessels have had on the development of colonial Australia. Archaeological evidence of wooden coastal traders built in Australia and revisited historical research has challenged long standing beliefs that Australian-built ships were poorly constructed compared to their British and American counterparts.

Absence of archaeological evidence of convict-built ships poses a problem for determining their build quality. There is a significant amount of archival evidence on the operations and lives of these ships including personal correspondence on their performance and build quality. Historians have argued that due to the shorter working lives of Australian-built ships, their construction must have been of a poorer quality than their British of American contemporaries (Bach 1976:57; Hainsworth 1981:120; Jeans 1974:160). This generalization fails to consider multiple factors that would have contributed to the working lives of these vessels. The coastal waters around Australia were very poorly mapped during the early 1800s, and there was very little maritime infrastructure during this time. Lighthouses, jetties, and Harbour towns were only just beginning to be established. Unfamiliarity with weather patterns and coastlines made sailing particularly dangerous when combined with the many reefs hidden just below the water surrounding Australia.

This generalization was challenged by Coroneos, stating that the evidence provided did not include foreign-built vessels in Australian waters (1991:7). Initial research of Clarence seems to have supported this conclusion. *Clarence* had a nine-year lifespan, but the conclusion of the archaeologists was that the ship was an example of shipbuilders adapting to local conditions, not poorly constructed (Staniforth and Shefi 2014:340). This was determined by examining the remaining hull of *Clarence* and comparing the remains to contemporary foreign ships. One of the important points Coroneos makes is that these ships were not poorly built but cheaply built with a specific working life in mind (1991:11). This claim was further supported by research on multiple ships by Bullers (2006). The ships coming out of Sarah Island and Port Arthur were built for the same purposes as the free citizen-built ships in northern Tasmania and in many cases, builders had access to the same types of lumber as free citizen-built ships. With the research done by Bullers and others successfully arguing against the generalization that ships with lower working lives were constructed poorly, a method can be built using the historical approach of using working life of the vessels, along with historical accounts of vessel construction and performance of ships built by two groups in the same region for the same purpose with access to the same timbers.

The shipwrights that settled in Tasmania were skilled craftsmen from Britain, including those at Sarah Island and Port Arthur. Convict dockyards had two major differences from civilian dockyards: the logistical issues of isolated convict settlements, and the labour force used for vessel construction. Many of the convicts were taught trades in the labour gangs or had little experience before arriving in Tasmania. The isolated nature of the settlements led to supply chain issues and delays in finalizing construction of the larger vessels, specifically at Sarah Island. In the early years of shipbuilding shipwrights had to learn the properties of Australian

trees like Huon pine and Tasmanian blue gum which would have differed from the timber used in boat construction in the northern hemisphere.

Methodology

Due to lack of archaeological evidence of convict-built ships, archival research will be heavily relied upon. The Tasmanian Archives located in Hobart has correspondence between government officials during the early colonial period of Australia. In these archives are letters between Governors and Commandants of the penitentiaries, surveys of newly built ships and general correspondence about government ships and resources. Many convict records for Tasmania are digitized and maintained by Libraries Tasmania. Information on convict shipwrights will be accessed from here as a starting point. Trove's online database of newspapers has multiple articles about the arrival and departure events of ships, including wrecking events and information on shipwrights.

While several archives are available online, they are not transcribed. Due to the sheer number of files, many letters are filed in a single folder spanning multiple dates organized by a single keyword or theme. This makes finding key pieces of evidence slow, resulting in hours of combing through files in a general date range. There is likely more evidence than presented in this study, but retrieving all the data available is outside the scope and timeframe of this study.

The collection of newspapers and gazettes used in Nicholson's, Broxam's, and Syme's books provide dates of arrivals and departures of vessels into ports, with mentions of government vessels and their tonnage and vessel type as well as ports arrived from. There are also occasional notes about significant events in these, as well as information of the type of cargo and number of passengers ferried. Where this information falls short, newspaper shipping intelligence and personal logs may be used.

A vessel's working life can be an indicator of build quality, but only if it's analysed within context of a larger picture. Poor or incomplete maps and nautical charts, unfamiliar timber, shipwright experience, lack of maritime infrastructure and unfamiliar coast and weather conditions all contribute to the average working life of Australian vessels. A more useful metric would be to compare the distance the ships travelled in their lifetime. A ship running cargo constantly between Australian colonies might not last as long as one that occasionally ferries passengers from Tasmania to Sydney. The difficulty is in incomplete historical records, and that no such database currently exists based on the ships themselves.

The main points of data collected to determine each vessel's minimum distance travelled focused on years in service or working life, arrival and departure dates, and ports of arrivals and departures. Records of completion mark the start date for the vessel's lifespan, and the last recorded departure from port, wrecking or record of decommissioning served as the end date for the service period. These values were compared to lifespans of free citizen ships and their construction based on the same metrics as well as archaeological evidence. Where historical records mention construction techniques or specifications these will be considered as well. Timber samples for structural hull components are available for a limited number of free citizen boats built in Tasmania, and these will be compared to archival reports of timber used in convict-built ships where appropriate. Specifics on keel, frames and

planking are particularly useful for understanding ship construction and will be included where available.

The primary aim of this study is to select eight of the most documented convict-built ships and build their voyages in geographic information system (GIS) software to calculate a minimum distance travelled for each ship based off the data gathered from newspapers and volumes on shipping arrivals and departures. While these tables will not be a complete record of voyages for most of these ships, they will help establish patterns in the voyages taken by these vessels, and in many cases represent most voyages taken in a ship's working life. This study compiles data by using newspaper articles, records of shipping arrivals and departures, and other historical documents to determine the trips these vessels made. The distance these vessels travelled will be determined through historical documentation of routes and plotted in GIS software. Figure 8 shows an example of a few of the routes mapped in GIS software for this study. The distance of these routes will be recorded and entered in a table for each route. A minimum distance can be calculated for these vessels and compared. Historical accounts of shipwrights' experience and knowledge will be recorded and compared to the vessels they constructed. Free citizen ships that have been rediscovered and archaeologically recorded will then be compared to the historical record of convict-built ships. A few free citizen-built ships will also have a record of voyages culminated to compare to the convict-built ships. Historical records of surveys will be reviewed, as well as any other historical accounts that provide insight into the construction of the vessels such as timber choice and shipwright experience.

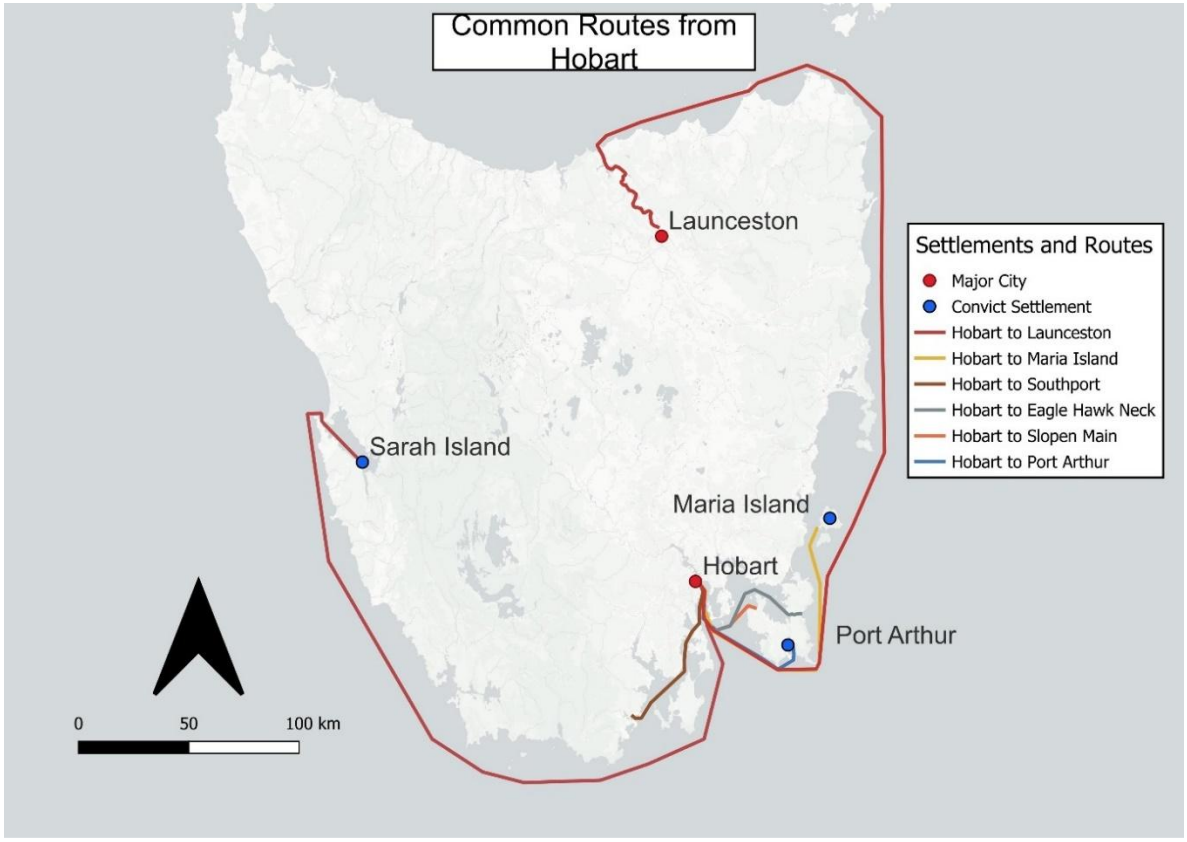

Figure 8. Map of common routes from Hobart (map by M. Smith).

Once a minimum distance travelled is established for each vessel in this study and archival data is complied, a comparison of convict-built ships and free citizen-built ships construction quality can be made. This can be further analysed regarding quality between the ships built at Sarah Island and Port Arthur based on service life and pattern of use. Historical records of shipwrights working at these penal stations can be referenced and compared to the working lives of the vessels they constructed as well as their use.

Historical documents

To estimate the distance a vessel may have travelled, primary evidence will concentrate on newspapers shipping news or shipping intelligence columns accessed through Trove. These columns were usually very sparse with information, usually including just the vessel name, vessel type, date of entry and place of departure. Newspapers would frequently report on the arrivals and departures of ships in major ports, as well as accounts of significant events such as wrecking events, groundings, repairs and loss of ships. A record of newspaper information on the movement of ships in Tasmania has been completed from 1802 to 1850 (Nicholson 1983,1985; Broxam 1998). For vessels involved in inter-colonial trade, there is an account of all known shipping arrivals and departures for South Australia from 1627–1850 (Sexton 1990) as well as a collection for Victorian ports from 1798–1855 (Syme 1984,1987). While there is not a complete history of each ship, there is enough evidence to provide context and a pattern of use for most of the most significant ships built at convict shipyards and compare them to other Australian constructed vessels.

Understanding the context and inconsistencies of primary sources is essential when conducting this research. Misprints, misspellings and factually incorrect statements are not uncommon in these historic newspapers. It is important to assess the validity and significance of these materials to use them appropriately. It is equally important to recognize what is not relevant to the study. In the case of shipping news, there are examples of ships not being recorded as arriving or leaving port.

This research takes this information and enter it into tables categorized by ship. This information can then be used to compare the working life of vessels as well as the estimated minimum distance these vessels travelled. Comparisons can then be made between the shipwright in charge and the dockyards where they were built.

Correspondence of government officials and appointees at Sarah Island and Port Arthur can be used to provide context to the construction of these vessels, the working conditions and supply issues that may have contributed to the construction quality of these vessels. Surveys were completed on newly built ships registered in Hobart, where a selection still survive today in archives, like the survey done on *Derwent* (Nash 2003b:85). Tasmanian government documents were accessed through the Tasmanian Archives online portal by Libraries Tasmania.

Archaeological perspectives

Archaeological evidence for convict-built ships is supplementary to this study, as no convict-built ships have been found to date. Studies of Australian-built wooden ships have refuted claims that these vessels were poorly constructed (Bullers 2006:64). Archaeological surveys have been conducted at the Sarah Island penal settlement that have mapped out remains and provide context for the conditions and capacity

for work at the site compared to Port Arthur (Nash 2007:102). Similar surveys and excavation were conducted at Port Arthur providing similar context to the layout, capacity and working conditions of the shipbuilders (Tuffin 2004).

The methodology of this research relies heavily on the archival record, with archaeological evidence being used to contextualize the dockyards in which these vessels were built. These two work together to provide a more detailed picture of the construction and life of these vessels, including their conception and retirement in many cases. The documentary evidence, however, can be scattered and scarce at times. Putting together many scattered pieces of evidence has led to an approach that allows for the approximation of distance travelled by these ships. These sources of information will be collated to draw conclusions about the build quality of convict-built ships from Tasmania and identify gaps in knowledge in the following chapters.

Limitations

The main limitations in the research will be the lack of archaeological evidence for convict-built ships and gaps in archival records of arrivals and departures. While archaeological evidence exists in the old penal settlements, no direct evidence of construction of the ships themselves has been found. The historical evidence may also be difficult to interpret, as a significant portion of records are damaged or unclear and most are handwritten. Ships will have multiple names due to a change in ownership. Ships may also share names, further adding to the confusion of tracking their histories. Records of voyages will be incomplete, and a complete history of the vessels in question won't be possible except in rare instances. There may be records of extensive repairs that would affect the analysis of the data that simply no longer exists. Further issues come across when identifying timber types in historical documents. Botanists in early colonial times in Australia did not use consistent names when identifying tree species (Kellie 2012:56). Despite these possible issues, enough evidence is available to make a strong case for determining convict-built vessel quality.

Further limitations exist by estimating the distance travelled by these vessels. While GIS software is convenient, it is not entirely accurate. It does not consider how these vessels sailed, by tacking. The routes mapped are lines, and do not move back and forth through the sea as these ships would have sailed. A better system for these calculations would be a computer simulation that considers seasonal wind, current and tide data along with climate data spanning multiple years. This approach would provide a much more accurate estimate for the distance travelled by these vessels, but creating this simulation is outside the scope of this study.

Chapter 4: Results

While working life alone is not a good indicator of the quality of a ship's construction, it is a good metric when used in conjunction with a wholistic approach to determine ship quality. Working lives of Australian-built vessels wrecked in Victoria was recorded and shows that the average working life of vessels wrecked between 1830 and 1859 was 5.89 years (Coroneos 1991:12). Ships wrecked in the 1830s had a working life of 5 years on average, and for vessels wrecked in the 1840s the average life was 3.58. Of vessels wrecked between 1850 and 1859 the average working life was 9.09 years. Figure 9 shows the working lives of vessels built at Sarah Island and figure 10 shows the working lives of vessels built at Port Arthur. The ships built at Sarah Island had an average working life of 11.36 years, and ships built at Port Arthur had an average working life of 15.88 years.

Working life of vessels built at Sarah Island

Vessel	Type	Shipwright	Years of service	Years in service	Reference
Governor Sorell	Schooner	Likely Newton Gray	1824 to 1827	3	Nash 2003b
James Lucas	Sloop	Newton Gray	1825 to 1829	4	Nash 2003b
Despatch	Schooner	Newton Gray	1825 to 1826	1	Nash 2003b
Derwent	Brig	Thomas Cole	1827 to 1831	4	Nash 2003b
Opossum	Cutter	Thomas Cole and Newton Gray	1827 to 1853	26	Nash 2003b
Tamar	Brig	David Hoy	1828 to 1845	17	Nash 2003b
Charlotte	Sloop	David Hoy	1829 to 1845	16	Nash 2003b
Badger	Schooner	David Hoy	1829 to 1843	14	Nash 2003b
Clyde	Sloop	David Hoy	1829 to 1841	12	Nash 2003b
Isabella	Brig	David Hoy	1830 to 1845	15	Nash 2003b
Adelaide	Brigantine	David Hoy	1833 to 1861	28	Nash 2003b
William the Fourth	Barque	David Hoy	1831 to 1845	14	Nash 2003b
Penelope	Schooner	David Hoy	1832 to 1834	2	Nash 2003b
Shamrock	Cutter	David Hoy	1832 to 1845	13	Nash 2003b
Shannon	Schooner	David Hoy	1832 to 1845	13	Nash 2003b
Industry	Schooner	David Hoy	1832 to 1843	11	Nash 2003b
Fredrick	Brig	David Hoy	1834 to 1834	.17	Nash 2003b
			Average working life of vessels built at Sarah Island	11.36 years	

Figure 9. Working life of vessels built at Sarah Island.

Working life of vessels at Port Arthur

Vessel	Type	Shipwright	Years of service	Years in service	Reference
Tasmania	Schooner	David Hoy	1833 to 1834	1	Nash 2003b
Kangaroo	Schooner	Unknown	1833 to 1836	3	Nash 2003b
Eliza	Schooner	John Watson	1835 to 1864	29	Nash 2003b
Emily	Schooner	John Watson	1835 to 1870	35	Nash 2003b
Fusilier	Bouy Boat	David Hoy	1837 to 1866	29	Nash 2003b
Fanny/Wallaby	Barquentine	John Watson/David Hoy	1837 to 1851	14	Nash 2003b
Booth	Schooner	David Hoy	1838 to 1841	3	Nash 2003b
Derwent	Paddle Steamer	David Hoy	1839 to 1859	20	Nash 2003b
Terror	Schooner	David Hoy	1841 to 1853	12	Nash 2003b
Lady Franklin	Barque	David Hoy	1842 to 1885	43	Nash 2003b
Swallow	Schooner	David Hoy	1842 to 1851	9	Nash 2003b
Black Diamond	Schooner	David Hoy	1842 to 1848	6	Nash 2003b
Eleanor	Schooner	David Hoy	1843 to1866	23	Nash 2003b
Lady Denison	Barque	David Hoy	1847 to 1848	1	Nash 2003b
Pilot	Schooner	David Hoy	1848 to 1870	22	Nash 2003b
Lucy	Brig	David Hoy	1848 to 1852	4	Nash 2003b
			Average working life of vessels built at Port Arthur	15.88 years	

Figure 10. The working lives of vessels built at Port Arthur.

Shipwright	Average working life of ships in years
Newton Gray	8.5 years (including *Opossum*)
Thomas Cole	15 years (including *Opossum*)
David Hoy	13.65 (including *Fanny*)
John Watson	26 (including *Fanny*)

Figure 11. Master Shipwrights and the average working life of ships they built at Sarah Island and Port Arthur.

The average working life of ships when broken down by shipwright is found in figure 11. Vessels that had two shipwrights were included in both shipwright's metrics. Out of these major vessels built at Sarah Island and Port Arthur, three were constructed by Newton Gray, one by Thomas Cole, 24 by David Hoy and two by John Watson. One vessel was constructed by Thomas Cole and Newton Gray, and one was constructed by John Watson and David Hoy, as well as one constructed by an unknown shipwright.

Tables of vessel voyages used in this study were compiled referencing newspapers and books compiling newspapers, diaries and other historical documents to document the shipping arrivals and departures of major ports. These tables of voyages are found in Appendix A and show an estimated minimum distance travelled of the ships based on the recorded arrivals and departures of ships and distance measured in GIS software based off known shipping routes or shortest routes. Appendix B is a table of the two points of the voyages and the estimated distance. Any entries marked with a "*" are inferred based on last port or known destination of the vessel.

Results of convict-built ships

The schooner Governor Sorell *(1824–1827)*

Governor Sorell was the first major vessel launched at Sarah Island. The ship was a clinker-built two-masted schooner of 35 tons (Nash 2003b:101). It is unclear who the master shipwright was for the vessel's construction, but it was likely Newton Gray. Gray oversaw many of Sarha Island's early ship building enterprises so it's very likely he oversaw *Governor Sorell*'s construction. It had a working life of just three years before it wrecked on Hope beach in 1827. It was reported that the vessel capsized in September of 1827 due to a sudden storm in Port Jackson but only sank to deck level. This was attributed to *Governor Sorell*'s construction of Huon pine (Nicholson 1983:132). The vessel had very few recorded voyages, and with the records available its estimated minimum distance travelled was 7,000 kilometres.

The brig Derwent *(1827–1831)*

Launched in 1827 by Thomas Cole, the two-masted brig Derwent was received poorly by surveyors in Hobart. Initial observations from a surveyor while the vessel was loaded with cargo stated that *Derwent* was faulty in fashion, but the fastenings were strong (Tasmanian Archives CSO1/1/110:92). The surveyor noted that the planking was of Huon pine except for the wales and planks above, which were a mix of Myrtle and other softwood. Once the cargo was unloaded, the surveyor noted multiple faults with

Derwent. The first being that the ship had unequal sides and leaned starboard. They noted that the beam was too narrow and could have used two more feet. The third was that the sides were too high for *Derwent*'s beam. The last observation was that the shape of the hull did not taper off soon enough going aft, leaving the ship with a sudden gathering in on the rudder (Tasmanian Archives CSO1/1/110:98). This would cause improper flow of water to the rudder, making the rudder less effective. The surveyor drew a rough sketch in the letter to the Colonial Secretary outlining this issue in Figure 12.

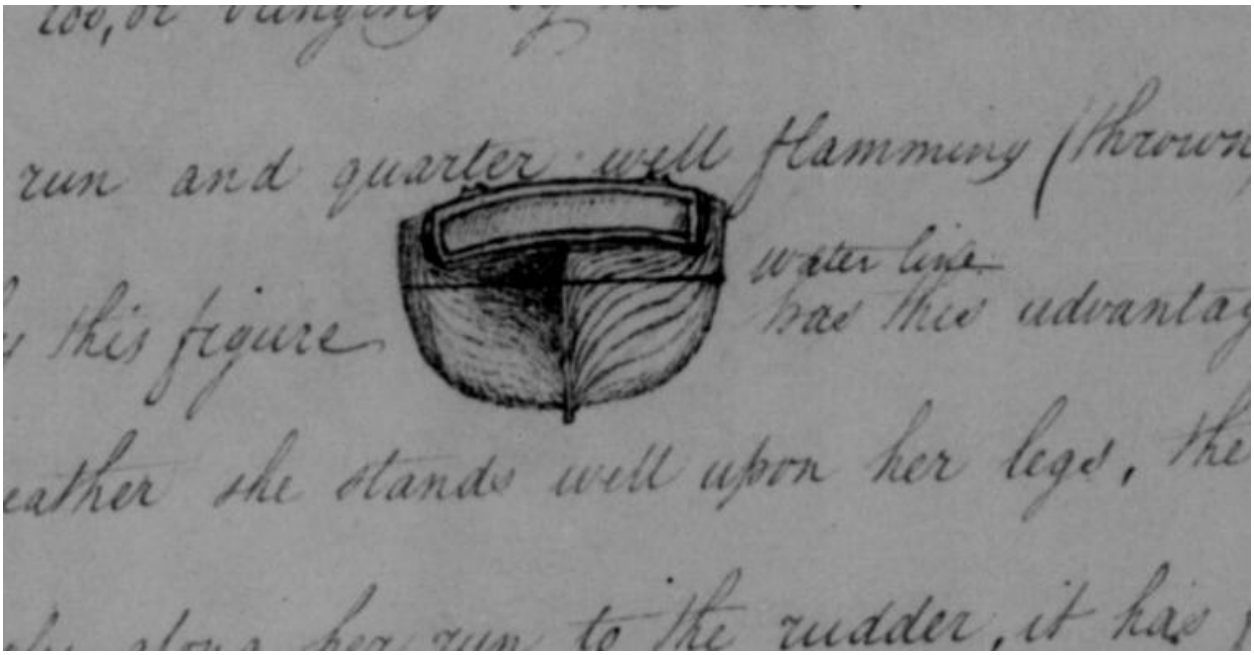

Figure 12. Sketch in a letter to the Colonial Secretary showing the shape of Derwent's hull and water line, cropped for visual clarity (Tasmanian Archives, General Correspondence, CSO1/1/110:99). Reproduced with permission.

The surveyor did state three positive observations about the ship's construction. The first being that due to its faulty shape, it could carry large amounts of boxy cargo. They further state that the vessel will draw little water due to the timbers being light and buoyant (Tasmanian Archives CSO1/1/110:100). The last observation made was that *Derwent* was well-fastened.

Upon inspection with cargo unloaded, a second surveyor noted that a great error had been made in the floor timbers being too far towards the bow affecting the bow's shape. Further criticisms were made that the angle from the floor heads upwards were too acute, causing the sides of the vessel to almost be perpendicular rather than gradually rounded to the main wales. The surveyor concluded that this would leave the vessel unable to support the weight of its sails under wind. Further observations stated that the floor timbers were too thin making the vessel weak against impact in case of a grounding.

The surveyor then lists out the extensive modifications needed to make *Derwent* safe. They state once the modifications were made, the vessel would be safe enough to

travel between Hobart, Macquarie Harbour and other Harbours along the coastline (Tasmanian Archives CSO1/1/110:95). Despite this *Derwent* still had a reputation as being unsafe, going as far as suggesting that its rigging and masts be used for a new brig as the vessel was only useful as a hulk (CSO1/1/118:344).

Derwent has very few recorded voyages. The majority of these were between Macquarie Harbour and Hobart. The last voyage was to take the first lot of convicts to the newly established settlement in Port Arthur. *Derwent*'s estimated minimum distance travelled was 7,456 kilometres.

The cutter Opossum *(1827–1853)*

In correspondence from the colonial secretary, *Opossum* was noted as being built of the best materials, planked with light wood and well fastened (Tasmanian Archives CSO1/1/199:62–63). The Colonial secretary goes on to say the vessel was built very strong with spars of Huon pine. He stresses that *Opossum* is so strong and well-built due to the direction of Newton Gray and that all the faults of the vessel should be attributed to Thomas Cole.

Further details of *Opossum's* construction come from later reports that the vessel was inspected and found to be well built, but with a few flaws. Many of the structural components of the ship were noted as being too large, such as the beams, knees and other timbers (Tasmanian Archives CS01-1-199-4737:69–70). The surveyors noted that the beam was too narrow for *Opossum's* length by 18 inches and the water line was 18 inches too low. The stern was also mentioned as being too low, with the possibility of the ship becoming unsafe when loaded with cargo. The masts and spars were also too large and needed reducing.

The consensus of the surveyors, which included the Hobart Harbour Master and Wharfinger, was that *Opossum* would never be fit for government use as the vessel could only carry a very small cargo. *Opossum* was immediately put up for sale and advertised to be ready for sea with rigging complete. The ship was listed with mainsail, foresail, square sail, gaff topsail and two jibbs (Tasmanian Archives CSO1/1/199:70). Despite this advertisement for sale, the ship served in the government fleet until 1842 when it was sold to Thomas Drew (Parsons 1980:85).

Opossum had multiple incidents during its service life. The first was in 1830 when it wrecked near River Forth (Nicholson 1983:177). The ship was able to be salvaged but it is unclear how long it was out of service for as there is a gap in the record of four years after this report. The second was when the ship was thrown onto its beam ends near River Forth. Hatch covers kept the vessel from sinking and it floated to shore (Broxam 1998:249). The cutter had a working life of 26 years, and an estimated minimum distance travelled of 17,330 kilometres.

The brig Tamar/Elizabeth Rebecca *(1828–1845)*

Tamar was built by shipwright David Hoy at Sarah Island. The brig was launched in 1828, but supply issues kept *Tamar* from being fully rigged and ready to sail until 1829. Once ready to sail, *Tamar* sailed to Hobart for survey and to be registered. The Colonial

Secretary reported that the ship was extremely well built, and even praised the prisoners involved in the construction of *Tamar* (Tasmanian Archives CSO1/1/416:127). The ship's stern was adorned with a landscape oil painting of George Town and the river, with a shield and the brig's name underneath (Launceston Advertiser 27 July 1829:2). Details of *Tamar*'s construction are noted in Figure 13 (Tasmanian Archives CSO1/1/242:98).

Measurement description	Measurement
Extreme length of keel	61 feet six inches (18.75m)
Length of keel for measurement	52 feet 10 inches (16.1m)
Extreme breadth of beam	21 feet eight inches (6.6m)
Depth of hold	10 feet 10 inches (3.3m)
Length overall	75 feet six inches (23m)
Length upon deck	70 feet (21.3m)

Figure 13. Measurements of *Tamar* from Tasmanian Archives (CSO1/1/242:98).

The survey report found *Tamar* to be well constructed and fastened and well suited to the purpose of which the vessel was built (Tasmanian Archives CSO1/1/242:149–154). The inspection report praised the work of the ship builder and found the vessel appropriate for carrying a large cargo. The surveyors recommended that a bulkhead be repositioned, to allow for a more even distribution of cargo, which would also allow for more cargo to be loaded into the hold. The final recommendation of the survey board was that *Tamar* was extremely well built and would serve the colonial government well, and that credit should be attributed to those that managed and constructed the ship.

The vessel had a long service life while under the control of the colonial government. Roughly a year after being sold in 1844 it was stranded at Trial Harbour due to a faulty rudder while returning from a whaling voyage.

Tamar has an extensive record of voyages recorded in local newspapers. Most of the voyages were to take supplies from Hobart to the other settlements in Tasmania. Timber and convicts were the main cargo during these voyages. However, occasional tours from higher ranking government officials were occasionally conducted onboard *Tamar*. One notable event was when *Tamar* was tasked to rescue the crew of the *George III* wreck. *Tamar* was then tasked with deploying buoys in the channel to assist with navigation. *Tamar* had an estimated minimum distance travelled of 44,411 kilometres and a working life of 17 years.

The sloop Charlotte *(1829–1843)*

In 1829 David Hoy launched *Charlotte*, a one-masted sloop of 28 tons (Nash 2003b:102). The sloop was sold out of government service in 1837 to Richard Griffiths and Thomas Brown. Charlotte had a service life of 14 years, and a minimum distance travelled of 26,946 kilometres.

The brig Isabella *(1830–1845)*

In August of 1830 the two-masted brig *Isabella* was launched by David Hoy at the Sarah Island dockyard. The ship had a lifetime of 15 years, and an estimated minimum

distance travelled of 55,688 kilometres. *Isabella* had three incidents pertaining to repairs during its working life. The first was in January of 1841 when the ship ran aground and began to leak (Nicholson 1985:189). *Isabella* was then beached and thought too leaky to repair, however in October that year the ship was reported arriving in Launceston from Hobart. The second was in June of 1842 when it was reported that the ship was in Hobart for repairs (Nicholson 1985:230). The last incident before her final wrecking was at Betsey Island where *Isabella* struck a reef and was refloated after unloading 3,200 bricks (Nicholson 1985:234). The vessel was sold out of government service in 1845 to Augustus Kramer and shortly afterwards was wrecked at Port Albert, Victoria.

The cutter Shamrock *(1832–1845)*

Shamrock was a one masted cutter launched in 1832 by David Hoy at the Sarah Island dockyard. The vessel was sold out of government service in 1839 to Duncan McPherson (Parsons 1980:25). *Shamrock* has an extensively recorded series of voyages across its entire lifespan of 13 years with only a few gaps. The only recorded incident is when the ship became stranded downstream of Launceston with no damage (Broxam 1998:242). The vessel travelled an estimated minimum of 86,409 kilometres during its life.

The barquentine Fanny/Wallaby *(1837–1851)*

Fanny was built by John Watson and David Hoy. The ship was a three-masted barquentine of 284 tons. Watson started construction on the ship until he left his position as master shipwright in 1836 (Nash 2003b:91). Hoy took up the position in late 1836 and *Fanny* was launched in December of 1837. *Fanny* was the largest vessel built in the colony to date. The ship was sold in 1838 after sea trials to George Watson and Alfred Garrett and registered as *Wallaby* (Parsons 1980:23). The vessel had a working life of almost 13 years and an estimated minimum distance travelled of 19,707 kilometres. This is far short of what its distance travelled most likely is, as historic reports near the end of *Wallaby*'s service life state "whaling" as the destination. Given the multiple whaling grounds around Australia and surrounding ocean, further research would need to be done to determine the exact locations if it could be determined at all.

Results of free citizen-built ships

Compared to the working lives of convict-built vessels in this study, free citizen-built vessels in this study had shorter working lives. Figure 14 is a table comparing the working lives of all the ships in this study.

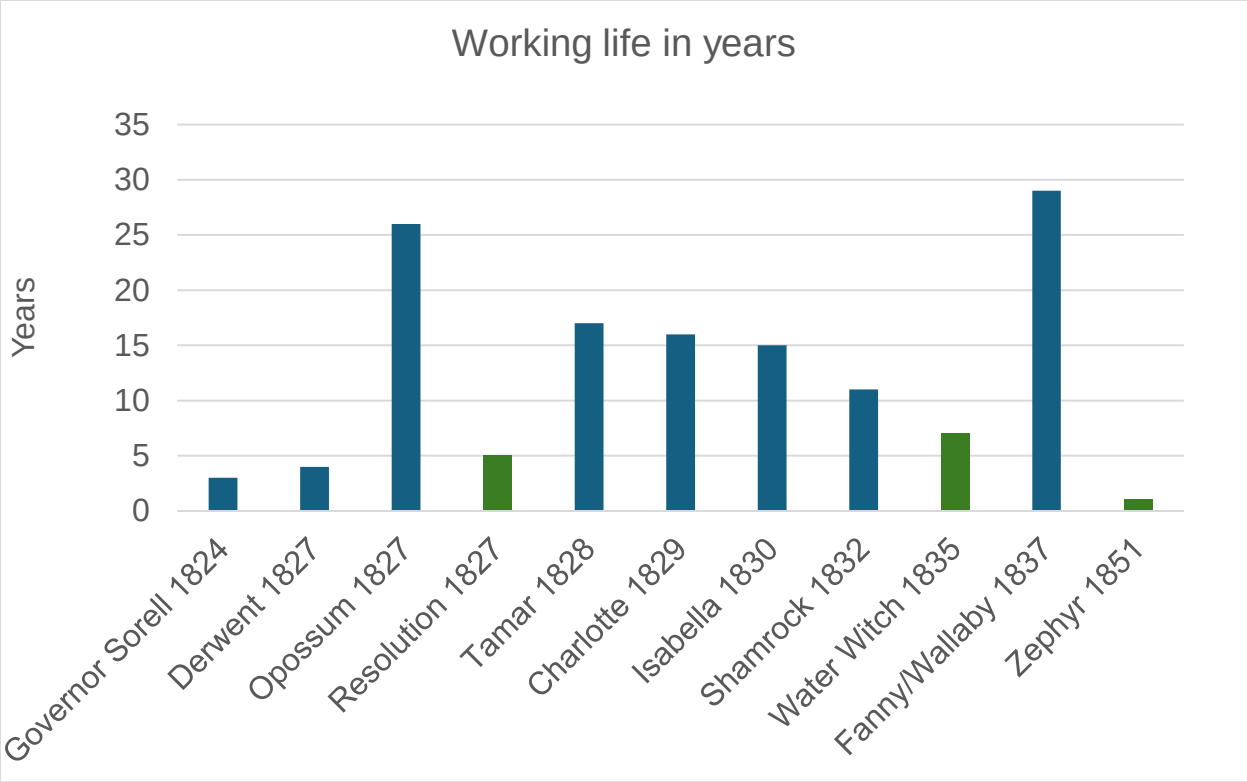

Figure 14. Working lives of ships. Blue bars are convict-built vessels, green bars are free citizen-built vessels.

The schooner Resolution *(1827–1832)*

Resolution was launched in 1827 by Jonathan Griffiths in Launceston. The 60-ton two-masted schooner was used to transport goods to Sydney and Hobart. The vessel had a relatively short working life of 5 years. It was initially registered to Jonathan Griffiths before being sold in 1832 (Parsons 1980:3). The vessel was lost on its second voyage after being sold. *Resolution* had two incidents with its rigging during its working life. The first was minor needing to put back to port for repairs while the second was a major failure resulting in the dismasting of the ship (Nicholson 1983:183). The ship made its way to Circular Head under jury rig where crew made emergency repairs before being towed by to George Town by *Friendship*. *Resolution* has a very extensive record of voyages and has an estimated minimum travel distance of 53,733 kilometres.

The cutter Water Witch *(1835–1842)*

Water Witch was built in Hobart by John Gray in 1835. The ship was a 25-ton single-masted cutter. Its early life was spent operating in local waters in the Derwent River before its first major voyage to Sydney in December of 1837 (Nicholson 1985:99). *Water Witch* was of clinker construction in the same fashion as contemporary British cutters (Jeffery 1992:215). The ship had a length to beam ratio of 2.6 and a beam to depth ratio of 2.0. Unlike most ships built in Tasmania, the timbers analysed from the wreck of *Water Witch* were mostly from mainland Australia. It was sold to the South Australian government in 1839 where it quickly ran into disrepair. It sank in the Murray

River in December of 1842. *Water Witch* had a working life of seven years. A minimum distance travelled could not be determined due to the ship's voyages being mostly local and records are mostly absent.

The schooner Zephyr *(1851–1852)*

In 1851 John Gray launched *Zephyr*. The vessel had an extremely short working life of one year. The vessel was sold to Alexander McNaughton in December of 1851 (Bullers 2007b:12). All its voyages were between Geelong and Hobart with an estimated minimum distance travelled of 8,350 kilometres. Records for this ship are extremely good due to its short working life of only five voyages. The construction of *Zephyr* was recorded during archaeological excavations and showed the vessel was built with appropriately sized frames and fasteners (Bullers 2007b:16). The ship was constructed of primarily Tasmanian blue gum, with a mixture of mainland Australian timbers used as well. Archaeological investigations into *Zephyr* showed the outer planking to be undersized for a vessel of its size, but with oversized frames (Bullers 2006:55–56).

Results of timber selection

Without physical evidence of ship remains to rely on, historical evidence was used to provide context for the timber used in constructing the ships at Sarah Island and Port Arthur. John Watson was a shipwright employed at Port Arthur for just under three years, starting in 1833. In 1863 he was called before a committee of Tasmanian Parliament called to investigate prison labour. In the report Watson recounts the number of labourers, the vessels he constructed and repaired, as well as specifics on the timber used in local ship construction and how it held up compared to foreign ships. Watson was specifically asked if he had been given the opportunity to examine a ship built of colonial timber after being used for 12 years, as well as ships built elsewhere. Watson states he has seen several examples of these ships, and states that ships built with colonial timbers had less defects that those built elsewhere of a similar age (Prison Labour Report from the Joint Committee 1863:17–18). He uses two vessels as an example, *Runnymede* and *Flying Squirrel* as an example. He notes that there was nothing unusual about their construction that would account for the lack of defects.

Watson does qualify his statement by stating that he has witnessed colonial ships with dry rot after seven years (Prison Labour Report from the Joint Committee 1863:18). He tells the committee that this is due to improperly selected timber, and that even foreign ships built and classed for ten years were in a worse state compared to colonial ones. When pressed for specifics on the quality of timber compared to other in the world, he stated that colonial timber was better than all except for East India Teak. When asked about where the best timber for shipbuilding could be found, Watson gave Port Cygnet and either side of the Huon for the highest quality timber. This area was one of the areas used in Bullers predictive model of shipbuilding, where they state that Tasmanian blue gum might have been more abundant in the past due to land clearing and agriculture (2018:11). Huon pine is also known to be in the area, and it is possible that it could have been more plentiful before the logging activities began in the early 1800s.

Results on master shipwrights at Sarah Island and Port Arthur

Newton Gray

In 1824 Newton Gray was transported to Sarah Island under a life sentence (Nash 2003b:85). Gray was noted as understanding all aspects of shipbuilding except for drafting (CSO1/1/60:20). Commandant Butler wrote to the Colonial Secretary requesting that he receive a per diem wage for building small boats at Sarah Island. Records show that he continued to collect wages through 1828 while working on *Tamar* (CSO1/1/242:146). Gray was granted a conditional pardon on the 25th of November 1829 due to his contributions to the shipbuilding industry at Sarah Island (CON31/1/15:82).

Gray was also one of the first people to be sent to Port Arthur and was almost certainly put to work building small boats immediately. In 1841 Gray was officially appointed as a shipwright at Port Arthur (CSO22/1/6:158).

Thomas Cole

Thomas Cole was appointed as Master Shipwright at Sarah Island in 1826. Cole was the first free shipwright appointed to the position and never gained the respect of the commandant. The commandant believed Cole lacked the experience of Gray (Nash 2003b:85). Very little historical evidence exists of Thomas Cole. Most of the records are letters pertaining to *Opossum* and Cole's involvement in its construction. In the letter any faults that *Opossum* had were said to be of Cole's doing (Tasmanian Archives CSO1/1/199:62–63).

David Hoy

Limited evidence exists of David Hoy's work in shipbuilding before their arrival in Tasmania. In letters Hoy sent looking for work, he noted that he had several years working at a government dockyard in Deptford, England as well as a foreman in two merchant yards (CSO1/1/118:340). On his arrival he immediately began looking for work as a shipwright and boat builder specifically for the government (Tasmanian Archives CSO1/1/71:64). In his letters of application, he stated that he built the cutter *Helen* for H. Walker at Pittwater as well as the brig *Apollo* at Bruny Island. While Hoy was not immediately employed by the government, he was quickly called upon when Thomas Cole was removed from Master Shipwright of Sarah Island. Hoy performed to the satisfaction of the government until Sarah Island was shut done and *Fredrick* was delayed in launching. Just before sailing to Port Arthur *Fredrick* was taken by a few convicts and sailed to South America. Hoy was blamed for the delays and in part for the taking of *Fredrick*. In a letter to the Lieutenant Governor, Hoy attempts to justify the work done at Sarah Island but notes that all his possessions were on *Fredrick* and that he had been left destitute (COS1/1/704/15432:186). Hoy was ultimately cleared of any neglect in the case of *Fredrick*. Hoy went to Hobart where he worked as a lighthouse superintendent until he took over the position of Master Shipwright of Port Arthur from John Watson.

John Watson

John Watson (Figure 15) would become the principal shipbuilder in Tasmania spending over five decades building quality ships. Watson moved to Tasmania in 1832 by gaining free passage as a ships carpenter on *Norval* (Robin 2011:140). The first mentions of vessels built by Watson are *Fox* and *Daisy*. Both entered a regatta on the Derwent River in 1834 and won their respective classes. *Fox* was noted as being the best equipped yacht the port had ever seen (Robin 2011:141). Five weeks later Port Officer William Moriarty recommended Watson for the position of Master Shipbuilder at Port Arthur. Watson was appointed shipwright and oversaw the construction of the dockyard facilities at Port Arthur in his first six months (Nash 2003b:89).

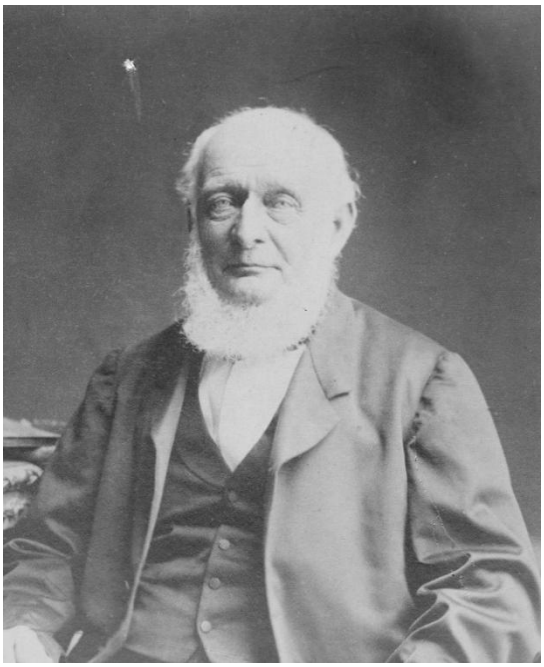

Figure 15. Picture of John Watson, shipwright (Tasmanian Archives, O'may Family, Glass Plate Negatives, NS6192/1/39, 1920–1929). Reproduced with permission.

Chapter 5: Discussion

Discussion on master shipwrights of Sarah Island and Port Arthur

Newton Gray

Newton Gray was seen as a valuable asset to the colonial government, so much so that he was given a conditional pardon for his work at Sarah Island. It is unlikely that they would have received a pardon if his work had not been satisfactory. While not much is known before his arrival in Tasmania, he was heavily involved in both the Sarah Island and Port Arthur dockyards. Gray's work at Sarah Island was recognized with a small wage, which is of note since he was a convict sentenced to life and convicts rarely received a salary from the colonial government. While he may not have been a draftsman, his constant involvement in government shipbuilding and appointment as a

shipwright at Sarah Island and Port Arthur proves his work was good enough to meet the requirements of the colonial government. The average working life of ships he oversaw as shipwright was 8.5 years, mostly due to *Opossum*'s long life. While Gray's earlier ships may not have a long working life, he was also one of the first building ships in Tasmania. Newton Gray was most likely an excellent boat builder and carpenter, and a competent shipwright.

Thomas Cole

Not much is known about Thomas Cole before his arrival at Sarah Island. Thomas Cole's short-lived appointment at Sarah Island was due to their laziness or incompetence as a shipwright. The only major vessel he oversaw as master shipwright and completed was *Derwent*. Combined with letters from the commandant stating his clear dislike of Cole, and the flaws with both *Derwent* and O*possum*, it is safe to say that Cole was either a poor shipwright or a lazy one.

David Hoy

The experience David Hoy brought with him from England no doubt assisted with his success in shipbuilding for the colonial government. As Master Shipwright he oversaw the most ships by far at both Sarah Island and Port Arthur, and the average working life of the ships he built was above the average working life of other Australian-built ships of the time. Hoy's longest sailing vessel built at a government dockyard was *Lady Franklin*, a barque that sailed for 43 years. Hoy's immediate call up to replace Thomas Cole at Sarah Island was an indication that his work was satisfactory enough not to look for other potential shipwrights to fill the position. Hoy was clearly a competent boat builder and shipwright.

John Watson

John Watson had a reputation as a competent shipwright upon completion of his first two vessels in Tasmania. He would continue to hold this reputation through the rest of his life. Watson had a short-lived appointment at Port Arthur but unlike Thomas Cole this was not due to incompetence. Watson completed two schooners and began work on the *Fanny* before he left his position. The two vessels he completed had a working life of 29 years and 35 years, which is exceptionally higher than the average of 5 years. *Fanny* was completed by David Hoy, and its working life was 14 years, still above average for vessels built during that time. Watson was clearly an exceptional boat builder and shipwright, and most likely the best in the colony until his final ship in 1856.

Discussion on convict-built ships

The schooner Governor Sorell *(1824–1827)*

Governor Sorell was the first major vessel launched at Sarah Island. The hull of Huon pine might have saved it from sinking, but without archaeological evidence or more substantial evidence it is difficult to say whether the timbers were of appropriate size and the shape of the vessel was appropriate for its intended purpose. Historical documentation of its survey would be beneficial but was unable to be found during this study. The vessel's working life was below the average by two years and being the first

major ship out of Sarah Island it's possible that it was not built appropriately for the conditions. Its distance travelled is also one of the lowest in this study. The results are inconclusive at best and more data is needed to determine its construction quality.

The brig Derwent *(1827–1831)*

Derwent was one of the vessels with the most information gathered in this study. Starting with the Commandants' doubts about Thomas Cole's work ethic and oversight, the outlook for *Derwent* was not favourable. Multiple surveyors pointed out issues with the construction, noting that major alterations would be needed just to make it safe for local voyages. Newton Gray attempted to have the vessel altered during construction but was unable to due to his subordinate position. The thin timbers would have left the vessel vulnerable in a grounding, and the shape of the aft hull would have left the vessel unable to initiate a tack quickly. Almost all flaws with the planning and design were attributed to Thomas Cole. The good fastening of the ship is almost surely the result of Gray's work as the ship's carpenter. Despite the modifications to make it safe, *Derwent* sailed very little, as if the government used the ship only out of necessity. Unlike many of the vessels in this study, *Derwent* did not wreck and was hulked in 1831 after taking the first convicts to Port Arthur from Sarah Island. This would suggest that the vessel was either in too poor a condition to use or simply would cost the colonial government too much money to maintain. *Derwent* has one of the lowest distances travelled in this study at just 7,456 kilometres. *Derwent* was clearly a poorly constructed ship with a clear indication that Thomas Cole as shipwright was mainly responsible for its faults.

The cutter Opossum *(1827–1853)*

Construction on *Opossum* began with the oversight of Thomas Cole but was ultimately finished and launched by Newton Gray in 1827. The survey report shows that the vessel was well built with a few flaws. These flaws did not keep *Opossum* from having a long service life of 26 years, many of which were served after being sold out of government service. Timbers used in the vessel's construction were Huon pine and "light wood". The vessel was deemed good enough to be repaired after one wrecking and one grounding event, and had an estimated minimum distance travelled of 15,204 kilometres. The record is very spotty with multiyear gaps, so it is likely that this distance is very low. While *Opossum* may have been strongly built, it was flawed in design and not fit for purpose as reported in the surveyor's report. Considering this as well as the long working life, it is likely that *Opossum* was of built well but not suited for its intended purpose and suffered flaws based on the switching of shipwrights during construction.

The brig Tamar/Elizabeth Rebecca *(1828–1845)*

David Hoy's first vessel built in a government dockyard was *Tamar*. The detail of craftsmanship is noted in the ship's stern where an oil painting of the landscape of George Town and the Tamar River was proudly displayed. The surveyor's report of *Tamar* was a glowing recommendation on the craftsmanship of the ship builders at Sarah Island. This is the first vessel from the dockyard where the surveyors noted that the ship was well built and fit for purpose. *Tamar*'s voyages in assisting shipwreck survivors and deploying buoys show the vessel was fit for service for the colonial government. *Tamar* had a working life of 17 years, with an estimated minimum distance

travelled of 44,411 kilometres. A portion of years on record seem to be almost complete, while others have very few records if any. This distance is almost certainly too small given the gaps in the record. The measurement of *Tamar* indicates that the ship was designed well, with a length to beam ratio of 2.8, well within what is considered normal (Bullers 2006:19). While the measurements are of the vessel as a whole and not of individual timbers, it is still a good indicator the *Tamar* was well designed. *Tamar* was a well-built brig and suited for its intended purpose.

The sloop Charlotte *(1829–1843)*

Built by David Hoy at Sarah Island, not much evidence exists regarding *Charlotte*'s construction. What is known is that the ship had a working life of 16 years, much higher than the five-year average of ships built in that time. The record of *Charlotte*'s voyages is spotty in a handful of years, while others seem to be almost complete. A five-year gap between 1838 and 1843 is the largest gap, when the vessel was re-registered in Hobart in March of 1843. Even with this large gap *Charlotte* has an estimated minimum distance travelled of 26, 946 kilometres. Over 20,000 of those kilometres are accounted for between 1829 and 1837. While there is not the same amount of evidence as *Derwent* or *Tamar*, accounting for the regular voyages in *Charlotte*'s early life and the distance travelled, as well as the reputation Hoy had as a skilled shipwright, it is likely that the ship was well-built and fit for purpose.

The brig Isabella *(1830–1845)*

David Hoy launched *Isabella* in 1830 from Sarah Island. Not much is found in the historical record about the vessel's construction. *Isabella* had a working life of 15 years, once again far above the average working life of other Australian ships built at the same time. The record of voyages for Isabella is not complete but has voyages in every year of its working life. The estimated minimum distance travelled by *Isabella* is 55,688 kilometres. The colonial government must have valued the ship enough to maintain and repair it after its wrecking events, rather than abandoning it like they did with *Derwent*. *Isabella* was clearly a well-made vessel fit for its intended purpose, valued by the government enough to maintain and repair for 15 years before selling it to private citizens.

The cutter Shamrock *(1832–1845)*

Shamrock lacks historical accounts of its construction but does have a very good record of voyages with very few gaps. The 31-ton ship was one of the smallest in this study and the ship with the highest minimum distance travelled. With an estimated distance of 86,409 kilometres travelled it was the most travelled vessel by far. *Shamrock*'s service life was 13 years, much higher that the five-year average of other Australian vessels. After being sold out of government service in 1839 *Shamrock* continued to stay in service until it failed to arrive in Hobart in May of 1845. This vessel's service life and voyage record shows *Shamrock* was well built and fit for purpose and use in Tasmanian coastal waters, with the ability to traverse the Bass Straight on occasion.

The barquentine Fanny/Wallaby *(1837–1851)*

David Hoy launched *Fanny* in December of 1837. Originally started by John Watson, the vessel was finished by Hoy. *Fanny* was the largest vessel built in the colony to date and was sold after sea trials in 1838. Reregistered to the new owners as *Wallaby*, the vessel had a service life of 13 years, still far above the average for Australian-built ships at the time. *Wallaby* spent a good portion of its working life on whaling voyages, making it all but impossible to determine a proper minimum distance travelled. When considering known ports of call, the vessel has an estimated minimum distance travelled of 19,707 kilometres. This number completely discounts eight years of whaling voyages undertaken by the ship, and the distance travelled should be substantially higher. Given this context, the reputation of the shipwrights and the service life of 13 years it's likely that *Fanny/Wallaby* was a well-built ship fit for purpose as a merchant and whaling vessel.

Discussion on free citizen-built vessels

The schooner Resolution *(1827–1832)*

Jonthan Griffith's *Resolution* was launched in 1827 and had a working life of 5 years, which is average for Australian-built vessels at the time. The ship's voyages were well documented and had an estimated minimum distance travelled of 53,773 kilometres. These voyages were almost all between Sydney and Launceston. The ships issue with rigging might indicate that the ship was not fully equipped for the conditions it was built for, especially the incident of it being dismasted. Without more evidence about the vessel's construction, the build quality of *Resolution* is inconclusive.

The cutter Water Witch *(1835–1842)*

Water Witch had a slightly above average working life of 7 years compared to other ships built of that time. Its length to beam ratio of 2.6 and beam to depth ratio of 2.0 means the shape of *Water Witch* was wider and shallower than its British counterparts. Given its use in sheltered environments and rivers, this vessel seemed to be fit for purpose. The timbers used in the vessel's construction may have had a part in its rapid degradation in South Australia. If the government lacked funds to properly maintain *Water Witch*, then the vessel would be left up to the characteristics of the timber for protection against environmental factors such as marine borers. *Water Witch* was of average construction quality and built for purpose in low energy environments like bays and river systems.

The schooner Zephyr *(1851–1852)*

Zephyr had a short working life of one year, well below the average for other Australian-built ships at the time. There is a full record of its voyages, with an estimated distance travelled of 8,350 kilometres. The ship's primary construction of Tasmanian blue gum indicates that the choice of timber was extremely good for this vessel. The dimensions of the planking and frames of *Zephyr* suggest that it was overbuilt as frames and not planking provide the structure in carvel-built vessels. It is likely that *Zephyr* was well-built, but with such a short working life and lack of further details about its construction the results remain inconclusive.

Discussion on Sarah Island and Port Arthur dockyards

Sarah Island

The ships built at Sarah Island early on had lower working lives on average. Records of their specific construction are scarce until *Derwent*. The short working lives of the vessels might indicate poor construction, if it weren't for the context in which these ships were built. Sarah Island was an extremely remote settlement, in a new colony with a limited understanding of the coastline and almost no maritime infrastructure. Newton Gray was a competent boat builder, but it is unclear whether he fully understood the timbers he was working with at the time. It is difficult to say whether these early vessels were well constructed without further historical evidence on the construction of the ships or archaeological investigation of these ships. *Opossum* breaks the trend of vessels with short working lives coming out of Port Arthur. While construction started under Thomas Cole, Newton Gray was the one that finished *Opossum* and was attributed with its better qualities. The ships David Hoy built at Sarah Island were extremely successful compared to other Australian-built ships during that time. Only two out of the 12 mentioned in this study had working lives below the average, with one of those being *Franklin*. *Franklin* was pirated and its working life was short due to abandonment, not to its construction quality. From the records of voyages we know that most of these ships were used regularly, except for *Derwent,* which many believed to be unsafe. Timber was not mentioned in many of the ships, but of the ones that were mentioned use of Huon pine was the standout attribute. Pine is traditionally used in deck planking and masts, so its use in hull planking is of particular interest given Huon pine's high resistance to marine borers. This in addition to the copper sheathing mentioned in a limited number of the accounts would have made the ships very resistant to marine borers and might explain why their working lives were above average compared to vessels like *Water Witch* that utilized lead sheathing and less resistant Tasmanian blue gum as hull planking.

Port Arthur

The average working life of ships at Port Arthur was 15.88, much higher than the average of ships built in Australia at the time. John Watson's ships were very long-lasting, and David Hoy had a handful of vessels that even matched those of John Watson. *Wallaby* was the only vessel in this study built at Port Arthur, but the record of voyages shows it was sailed extensively even with the latter part of the record only showing that it was used for whaling voyages. The average working life of ships built at Port Arthur was 15.88, higher than the average life of Australian-built ships and higher than those built at Sarah Island. With skilled shipwrights, direct access and first picks to two of the best shipbuilding timber sources in the world, it's clear these ships were of high quality.

The vessels built by convicts at the Sarah Island and Port Arthur Dockyards were amongst the best built ships in Australia and possibly the world at the time, except for a few early vessels, namely *Derwent*. The colonial government had a large workforce to gather timber which is considered second to almost none in the world for boat building. They had access to skilled and experienced shipwrights, John Watson being one of the

best in Tasmania. The working lives of these ships along with the records of their voyages shows that these vessels were heavily utilized in many cases and still outperformed other Australian-built vessels. The colonial government had the first choice in timber, provided a highly sought salaried position for shipwrights, and had the means to provide proper materials for the fit out of ships. While individual ships in the study may have inconclusive results, the data taken as a whole show that convict-built vessels were amongst the best built wooden ships in Australia during the early 1800s.

Chapter 6: Conclusion

Historians have claimed that Australian-built vessels were poorly made, and that is what accounted for their low working lives. This generalization was challenged by archaeologists when comparing foreign-built vessels to Australian-built vessels operating in Australian waters. These studies proved that foreign-built vessels had similar working lives when operating around Australia. Further studies of archaeological remains showed that in general, Australian-built vessels were overbuilt, further disproving the notion that these vessels were of poor construction.

Research question and aims revisited

This study focused on answering the following question:

How did the convict-built ships coming out of Port Arthur and Sarah Island compare in quality to ships built by free citizens in colonial Australia? The aims used to provide the framework of this study were to:

- Outline the difference in build quality of vessels between Port Arthur, Sarah Island, and free citizen constructed ships and investigate the factors that contributed to the difference in build quality.
- Assess the lumber choice and whether it was a major factor in the build quality of convict-built ships. Were convicts given the same quality lumber as that of free citizens?
- Determine whether the convict shipwright experience contributed to the build quality of the ships. It will assess whether they learned the trade while at the penal settlements or were shipwrights already before arriving in Australia.

This study set out to expand on the historical method that relied solely on the working lives of ships as an indicator of construction quality. When considering factors such as unknown timber, unknown coastlines and sparse maritime infrastructure, it is difficult to rely on ship's working lives alone to indicate how well these vessels were built. When context in the form of records of voyages, archival evidence of construction, surveyors reports and timber choice are considered in addition to working lives of vessels, a greater understanding of how well these vessels were constructed becomes evident. This method is extremely important in situations where no archaeological evidence is available, such as with convict-built ships in Tasmania. Future use of this method of examination may even be expanded to provide context for vessels where very little material remains are found, or even for vessels where there is a significant amount of remains.

The difference in build quality of vessels

To determine the build quality of vessels in this study, historical accounts of these ships were used to determine a minimum distance travelled as well as letters from surveyors and others involved in the dockyards. Archaeological evidence was used for free citizen-built ships if available. Expanding on previous methods of only looking at service life as an indicator, this study shows convict-built ships were as well built if not better

than free citizen-built vessels in Tasmania. Many of the convict-built ships such as *Opossum, Tamar* and *Charlotte* far exceeded the average working life of their contemporaries. The minimum distance travelled by these vessels indicates that most of these ships were used consistently. Reports of the craftsmanship put into vessels, especially *Tamar*, suggest these ships were soundly constructed with attention to detail.

The surveyor's reports where available provided construction and design criticisms essential for this study. Detailed reports on the design, quality of fastening and assessment on whether ships were fit for purpose provided much needed context for convict-built vessels. These included accounts of how the ships might act under sail and suggestions for improvements to make before being put into service.

Lumber choice and build quality of convict-built ships

Sarah Island and Port Arthur both supported major logging operations. Huon pine and Tasmanian blue gum were amongst the most sought-after timbers in local shipbuilding. Convict settlements had the best options for ship building timber since the settlements gathered and supplied the rest of the colony with timber. The historic letters requested logs to be set aside for shipbuilding, and the shipwrights would have personally selected logs appropriate for the ships they built. Reports of these ships being built primarily of Huon pine is of note, as free citizen-built ships such as *Water Witch* were shown to have a mixture of timbers from mainland Australia. The Huon pine construction of these ships was reported in newspaper articles as factors for why some of these ships survived traumatic events, and John Watson's testimony in a parliamentary hearing noted local Tasmanian timbers as being some of the best in the world for shipbuilding, being particularly resistant to dry rot. The convict dockyards at Sarah Island and Port Arthur had active logging operations gathering timber known for being some of the best in the world for shipbuilding and had first choice of these timbers when building ships.

Convict shipwright experience and build quality of the ships

Shipwright experience was a major factor in the results of this study. Historic letters clearly show that Thomas Cole was either an incompetent shipwright or a lazy one, causing the ships Cole oversaw to have substantial issues. His short time at Sarah Island had one ship completed *Derwent*, and another half-finished *Opossum*. *Derwent* was hardly sailed and was hulked as soon as the government could afford it. The vessel was reported as being faulty to the point of dangerous. *Opossum* was finished by convict shipwright Newton Gray, and letters suggest the design faults were that of Cole. Gray was known to be an exceptional ships carpenter but lacked drafting skills. Gray continued to work at Sarah Island and Port Arthur dockyards and was even given a pardon for his contribution to the government fleet.

David Hoy had prior experience building ships and was the shipwright that oversaw most vessels built by the government at Sarah Island and Port Arthur. Hoy's ships had an average working life well above the average of other Australian-built ships and foreign-built ships. John Watson's reputation in the colony speaks to their experience

and skills as a shipwright. Watson was known for building exceptional vessels with extremely long working lives. Hoy and Watson both built exceptional ships for the government as seen by their working lives and reputations.

Recommendation for Future Studies

Future research into convict-built ships is needed. The study presented here should be expanded to all convict-built ships in Tasmania. Timber sampling of convict-built ships would provide confirmation of the extensive use of Huon pine reported in the archival record. Scantling dimensions would allow a more thorough comparison of convict-built ships compared to free citizen-built ships. Computer simulations of sailing routes that incorporate climate data, wind and current patterns would provide more accurate estimations for distance travelled by these vessels. Many convict-built ships have known wreck locations, and with enough resources this research can provide important context into a widely unexplored part of Australian history.

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Appendix A

Figure 16. Estimated distance of sailing routes.

Location A	Location B	Estimated Distance in Kms
Hobart	Rocky Hills	196
Hobart	Port Phillip	835
Launceston	Port Phillip	479
Hobart	Eagle Hawk Neck	79
Port Arthur	Waterloo Point	150
Hobart	Slopen Main	49
Hobart	Port Arthur Via Norfolk Bay	140
Kingston, Hobart, Port Arthur	Hobart	157
Hobart	Norfolk Bay	66
Port Arthur	Launceston	505
Launceston	King George Sound	504
Hobart	Georges River	318
Launceston	Sarah Island	451
Launceston	Great Island (Flinders Island)	236
Hobart	Spring Bay	529
Macquarie Harbour	Hobart	410
Hobart	Port Arthur	77
Hobart	Great Island (Flinders Island)	431
Hobart	George III Wreck	78
Hobart	Flinders Island & George Town	
Hobart	Launceston	565
Georges River	Launceston	
Sydney	Hobart	1182
Sydney	Slopen Main	1133
Port Arthur	Flinders Island	354
Sydney	Flinders Island	781
Port Arthur	Port Philip	756
Launceston	Rocky Hills	311
Port Arthur	Norfolk Bay	69
Launceston	Rocky Hills	247
Macquarie Harbour	Maria Island	448
Hobart	Maria Island	143
Hobart	Birch’s Bay	36
Launceston	Swan Island	184
Swan Island	Heads (George Town)	126
Port Fredrick	Launceston	104
Ringarooma River	Launceston	167
Circular Head	Launceston	220
Launceston	Melbourne	480
Launceston	Port Sorell	90

Launceston	Port Fenton	112
Circular Head	Flinders Island	274
Circular Head	Adelaide	966
Circular Head	Portland Bay	414
Portland Bay	Adelaide	578
Launceston	Portland Bay	602
Geelong	Melbourne	61
Melbourne	Circular Head	329
Flinders Island	Maria Island	302
Hobart	Bass Straights	495
Bass Straight	Launceston	105
Port Arthur	Eagle Hawk Neck	84
Slopen Main	Eagle Hawk Neck	36
Recherche Bay	Hobart	89
Port Arthur	George Town	451
Hobart	George Town	526
George Town	Flinders Island	168
King Island	George Town	260
King Island	Circular Head	123
Circular Head	Derwent	637
Hobart	Waterloo Point	225
George Town	Port Phillip	395
Adelaide	Port Phillip	882
Adelaide	Hobart	1557
Melbourne	Hobart	833
Geelong	Hobart	835
Launceston	Port Darymple	65
Launceston	New Zealand and Sydney	4448
Launceston	Sydney	982
Sydney	Port Arthur	1105
Hobart	Kangaroo Island	1467
Port Arthur	Port Phillip	758
Hobart	Mt Louis	18
Launceston	Betsey Island	562
Maria Island	Southport	163
Hobart	Southport	77
Melbourne	George Town	421
Wilson’s Promontory	Hobart	608
Portland Bay	Hobart	996
Hobart	New Zealand, Lord Howe Island	3070
New Zealand	Hobart	2282
George Town	Straights	75
Sydney	Port Darymple	952
Pittwater	Hobart	66
Sydney	Kangaroo Island	1712
Launceston	Kangaroo Island	1076
Launceston	Adelaide	1160

Appendix B

Figure 17. *Governor Sorell* record of voyages

Governor Sorell

Type	Tonnage	Dockyard built	Shipwright	Year completed	Year out of service	Reason out of service	
Two Masted Schooner	35 Tons	Sarah Island Dockyard	Likely Newton Gray	1824	1827	Wrecked Hope Beach Tasmania	
Port	Day in	Last port	Day out	Destination Port	Distance in Kilometres	Notes	References
Hobart	26 February 1824	Macquarie Harbour	March 3 1824	Straights	410	Sealing voyage. Called in Launceston in April. Sold by government	Nicholson 1983
Launceston	April 1824	Sealing (Hobart)	May 1824	Sealing	565		Nicholson 1983
Sealing*		Launceston*			565		
George Town	May 9 1824	Sealing			526		Nicholson 1983
Fishery Straights *		George Town*			75		
Port Darymple	September 1824	Fishery straights	Oct 1824	Sydney	75		Nicholson 1983
Sydney*		Port Darymple *			952		
Tasmania	April 1825	Sydney			952		Nicholson 1983
Syndey *		Tasmania *			952		

Hobart	30 June 1827	Sydney	August 1827	Pittwater	1182	Capsized in squall in Sydney 19/9/1826 but due to Huon pine construction only sank to deck level and was salvaged. Fitted out for passengers for regular transport between Hobart and Sydney.	Nicholson 1983
Pittwater*		Hobart*			66		
Hobart	17 August 1827	Pittwater	29 August 1827	Launceston	66		Nicholson 1983
Launceston	10 September 1827	Hobart	14 September 1827	Pittwater	565		Nicholson 1983
Hobart	30 September 1827	Launceston	October 2 1827	Sloping Island	49	Got to Betsey's Island when she missed stays wrecked near the Hope wreck. Could not be refloated.	Nicholson 1983
Total distance in kilometres					7000		

Figure 18. *Derwent* record of voyages

Derwent

Type	Tonnage	Dockyard Built	Shipwright	Year Completed	Year out of service	Reason out of service	
Two Masted Brig	81 Tons	Sarah Island	Thomas Cole	1827	1831	Hulked	
Port	Day in	Last port	Day out	Destination Port	Distance Kms	Notes	References
Hobart	17 May 1827	Macquarie Harbour	June 1827	Macquarie Harbour	410		Nicholson 1983
Macquarie Harbour*		Hobart*			410		
Hobart	12 October 1827	Macquarie Harbour	28 October 1827	Launceston via Maria Island	410		Nicholson 1983
Macquarie Harbour*		Hobart*			410		
Launceston	11 November 1827	Hobart	November 1827	Hobart	565		Nicholson 1983
Hobart	December 1827	Launceston	9 March 1828	Macquarie Harbour	565		Nicholson 1983
Launceston*		Hobart*			565		
Hobart	3 February 1828	Macquarie Harbour			410		The Tasmanian 8 February 1828
Macquarie Harbour*		Launceston*			451		

Launceston	16 July 1828	Macquarie Harbour	9 August 1828	Hobart via Macquarie Harbour	451		Nicholson 1983
Macquarie Harbour*		Launceston*			451		
Hobart	13 September 1828	Macquarie Harbour			410		Nicholson 1983
Hobart	8 October 1828						Nicholson 1983
Hobart	27 December 1828						Nicholson 1983
Hobart	March 1829		Mid-April 1829	Macquarie Harbour		Forced to take shelter in Research Bay and finally made it after 9 weeks	Nicholson 1983
Macquarie Harbour*		Hobart*			410		
Hobart	11 April 1830	Macquarie Harbour	17 September 1830	Port Arthur	410		Nicholson 1983
Macquarie Harbour*		Hobart*			410		
Hobart	1 May 1830	Derwent (Macquarie Harbour)			410		Nicholson 1983
Port Arthur*		Hobart*			77		
Hobart	2 November 1830	Port Arthur	18 November 1830	Port Arthur	77		Nicholson 1983

Port Arthur*		Hobart*			77		
Hobart	4 December 1830	Port Arthur	21 December 1830	Maria Island	77		Nicholson 1983
Total Distance in Kilometres					7456		

Figure 19. *Opossum* record of voyages

Opossum

Type	Tonnage	Dockyard Built	Shipwright	Year Completed	Year out of service	Reason out of service	
One Masted Cutter	19 Tons	Sarah Island Dockyard	Thomas Cole/Newton Gray	1827	1853	Wrecked Point Nepean Victoria	
Port	Day in	Last port	Day out	Destination Port	Length Kms		References
Maria Island *		Macquarie Harbour*			448		
Hobart	3/02/1827	Maria Island			143		The Tasmanian 8 February 1828
Maria Island*		Hobart*			143		
Hobart	12 October 1827	Macquarie Harbour	7 March 1828	Maria Island	410		Nicholson 1983
Maria Island*		Hobart*			143		
Hobart	16 December 1829		16 December 1829	Birch's Bay			Nicholson 1983
Birch's Bay*		Hobart*			36		
Hobart*		Birch's Bay*			36		
Launceston	2 June 1830	Hobart	15 June 1830	Hobart	565	Still at launch 28/6 and 5/7	Nicholson 1983
Hobart*		Launceston*			565		
Launceston	November 1830	Hobart	December 1830	Swan Island	565	Wrecked near River Forth then Salvaged	Nicholson 1983
Swan Island*		Launceston*			184		

Heads*		Swan Island*			126		
George Town	11 May 1835	From Heads			7		Nicholson 1985
Launceston	27 February 1838	George Town*	27 February 1838	Investigate HONDURAS Grounding (Kelso Bay)	2	Grounding in Kelso Bay	Nicholson 1985
Kelso Bay *		Launceston*			36		
Port Fredrick*		Kelso Bay*			58		
Launceston	19 October 1842	Port Frederick			104	Sold by Government	Nicholson 1985
Ringarooma*		Launceston*			167		
Launceston	22 February 1843	Ringarooma			167		Broxam 1998
Launceston			15 September 1843	Circular Head			Broxam 1998
Circular Head	September 1843	Launceston	September 1843	Launceston	220		Broxam 1998
Launceston	29 September 1843	Circular Head	October 1 1843	Circular head via Emu Bay	220		Broxam 1998
Circular head	2 October 1843	Launceston			220		Broxam 1998
Launceston	11 October 1843	Northwest Coast	16 October 1843	Circular head via Emu Bay	220	Was thrown onto beam ends off Forth on 11/10. Hatch covers kept from sinking.	Broxam 1998
Circular head	October 1843	Launceston via Emu Bay	October 1843	Melbourne	220		Broxam 1998

Melbourne*		Launceston*			480		
Launceston	30 October 1843	Melbourne			480		Broxam 1998
Port Sorell*		Launceston*			90		
Launceston	18 December 1843	Port Sorell	20 December 1843	Port Sorell	90		Broxam 1998
Launceston	12 January 1844	Port Fenton	12 January 1844	N.W. Coast	112		Broxam 1998
Northwest Coast *		Launceston*			220		
Launceston	11 April 1844	Northwest Coast*			220		Broxam 1998
Circular Head	7 September 1844	Launceston			220		Broxam 1998
Flinders Island*		Circular Head*			274		
Launceston	25 January 1845	Flinders Island	January 1845	Adelaide	236		Broxam 1998
Circular Head	January 1845	Launceston	February 1845	Adelaide	220		Broxam 1998
Adelaide	23 February 1845	Circular Head	27 February 1845	Launceston	966		Broxam 1998
Launceston*		Adelaide*			1160		
Circular head	March 1845	Adelaide	March 1845	Launceston	966		Broxam 1998
Launceston	17 March 1845	Circular Head			220		Broxam 1998
Circular head		Launceston*	11 September 1845	Portland Bay	220		

Portland Bay	27 November 1845	Circular Head	29 November 1845	Circular Head	414		Broxam 1998
Circular Head*		Portland Bay*			414		
Portland Bay	3 December 1846	Circular Head	8 December 1846	Adelaide	414		Broxam 1998
Adelaide	13 December 1846	Portland Bay			578		Broxam 1998
Portland Bay	8 January 1846	Circular Head	14 January 1846	Launceston	414		Broxam 1998
Launceston*		Portland Bay*			602		
Portland Bay	7 January 1847	Adelaide	9 January 1847	Launceston	578		Broxam 1998
Launceston*		Portland bay*			602		
Melbourne	28 March 1847	Launceston	5 April 1847	Launceston	480		Broxam 1998
Launceston*		Melbourne*			480		
Melbourne	17 February 1848	Launceston	12/2/1848	Geelong	480		Broxam 1998
Geelong	12 December 1848	Melbourne	12 December 1848	Melbourne	61		Broxam 1998
Melbourne*		Geelong*			61		
Geelong	22 August 1850	Melbourne	22 August 1850	Melbourne	61		Broxam 1998
Melbourne*		Geelong*			61		

Geelong	9 September 1850	Melbourne	10 September 1850	Melbourne	61		Broxam 1998
Melbourne		Geelong*	7 June 1851	Circular Head	61		Broxam 1998
Melbourne	27 June 1851	Circular Head			329		Broxam 1998
Total distance in kilometres					17,330		

Figure 20. *Tamar/Elizabeth Rebecca* record of voyages

Tamar/Elizabeth Rebecca

Type	Tonnage	Dockyard	Shipwright	Year Completed	Year out of service	Reason out of service	
Two-masted brig	99 tons	Sarah Island	David Hoy	1829	1845	Wrecked at Trial Harbour, South Australia	
Port	**Day in**	**Arrived from**	**Day out**	**Destination Port**	**Distance Kms**	**Notes**	**References**
Hobart	20 August 1829	Macquarie Harbour	September 1829	Macquarie Harbour	410		Nicholson 1983
Macquarie Harbour*		Hobart*			410		
Hobart	11 April 1830	Macquarie Harbour	1 May 1830	Macquarie Harbour	410		Nicholson 1983
Macquarie Harbour*		Hobart*			410		
Hobart	11 September 1830	Macquarie Harbour			410		Nicholson 1983
Macquarie Harbour*		Hobart*			410		
Spring Bay*		Hobart*			529		
Hobart	17 November 1830	Spring Bay			529		Nicholson 1983
Macquarie Harbour*		Hobart*			410		
Hobart	16 March 1831	Macquarie Harbour	April 1831	Macquarie Harbour	410		Nicholson 1983

Macquarie Harbour*		Hobart*			410		
Hobart	25 May 1831	Macquarie Harbour	July 1831	Macquarie Harbour	410		Nicholson 1983
Macquarie Harbour*		Hobart			410		
Hobart	16 September 1831	Macquarie Harbour			410	Struck bar under pilot	Nicholson 1983
Great Island*		Hobart*			431		
Launceston	12 March 1832	Great Island			236		Nicholson 1983
Macquarie Harbour*		Launceston*			451		
Launceston	8 December 1832	Macquarie Harbour	Late December 1832	Hobart via Macquarie Harbour	451		Nicholson 1983
Macquarie Harbour*		Launceston*			451		
Hobart*		Macquarie Harbour*			410		
Hobart	14 March 1833		14 March 1833	Port Arthur	77		Nicholson 1983
Port Arthur	26 July 1833	Hobart	August 1 1833	Hobart	410		Nicholson 1983
Hobart	Aug/Sept 1833	Port Arthur			77		Nicholson 1983
Port Arthur	8 December 1833	Hobart			77		Nicholson 1983
Hobart	December 1833	Port Arthur	9 January 1834	Port Arthur	77		Nicholson 1983

Port Arthur*		Hobart*			77		
Hobart	Mid-January 1834	Port Arthur			77		Nicholson 1985
Port Arthur	27 January 1834	Hobart			77		Nicholson 1985
Hobart	8 February 1834	Port Arthur	12 February 1834	Port Arthur	77		Nicholson 1985
Port Arthur	13 February 1834	Hobart	Mid-February 1834	Hobart	77		Nicholson 1985
Hobart*		Port Arthur*			77		
Georges River*		Hobart*			318		
Hobart	3 March 1834	Georges River			318		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	18 March 1834	Port Arthur	3 April 1834	Port Arthur	77		Nicholson 1985
Port Arthur	4 April 1834		April 1834	Launceston	505		Nicholson 1985
Launceston	April/May 1834	Hobart & Port Arthur	9 May 1834	King George Sound, Port Darymple	505		Nicholson 1985
King George Sound*		Launceston*			504		
Launceston	8 July 1834	King George Sound	July 1834	Hobart via Port Arthur	504		Nicholson 1985
Port Arthur	31 July 1834	Launceston	4 August 1834	Hobart	505		Nicholson 1985
Hobart	6 August 1834	Kingston via Hobart & Port Arthur	16 August 1834	Richmond/Port Arthur & Norfolk Bay	157		Nicholson 1985

Port Arthur	8 September 1834	Hobart via Norfolk Bay	11 September 1834	Hobart	140		Nicholson 1985
Norfolk Bay*		Port Arthur *			69		
Hobart	12 September 1834	Norfolk Bay			66		Nicholson 1985
Launceston	30 September 1834	Hobart			565		Nicholson 1985
Georges River*		Launceston*			247		
Hobart	22 October 1834	George River	26 October 1834	Port Arthur	318		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	12 December 1834	Port Arthur	18 December 1834	Port Arthur	77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	24 December 1834	Port Arthur	3 January 1835	Port Arthur	77		Nicholson 1985
Port Arthur	4 January 1835	Hobart	12 January 1835	Hobart	77		Nicholson 1985
Hobart	13 January 1835	Port Arthur	16 January 1835	Port Arthur	77		Nicholson 1985
Port Arthur	17 January 1835	Hobart	18 January 1835	Safety Cove then Hobart	77		Nicholson 1985
Hobart	20 January 1835	Port Arthur	21 January 1835	Port Arthur	77		Nicholson 1985
Port Arthur	23 January 1835	Hobart	26 January 1835	Hobart	77		Nicholson 1985

Hobart	27 January 1835	Port Arthur	1 February 1835	Sydney	77		Nicholson 1985
Sydney*		Hobart*			1182		
Slopen Main*		Sydney*			1133		
Hobart	8 February 1835	Slopen Main			49		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	March 13 1835	Port Arthur			77		Morning Star and Commercial Advertiser 24 March 1835
Port Arthur*		Hobart*			77		
Hobart	20 March 1835	Port Arthur			77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	6 April 1835	Port Arthur	14 April 1835	GEORGE III Wreck	77		Nicholson 1985
George III Wreck*		Hobart*			78		
Hobart	15 April 1835	GEORGE III WRECK			78	Multiple trips to rescue survivors	Nicholson 1985
Port Arthur*		Hobart*			77		
Launceston	Late May	Port Arthur			505	Beacon river with Buoys	Nicholson 1985
Hobart	9 July 1835	Launceston	July 1835	Port Arthur	505		Nicholson 1985
Port Arthur	11 September 1835	Hobart			77		Nicholson 1985
Hobart	September 1835	Port Arthur	30 September 1835	George Town and Flinders Island	77		Nicholson 1985

George Town and Flinders Island*		Hobart*			431		
Hobart	12 November 1835	Wybalenna settlement Flinders Island	26 November 1835	Port Arthur	431		Nicholson 1985
Port Arthur	27 November 1835	Hobart	3 December 1835	Hobart	77		Nicholson 1985
Hobart	3 December 1835	Port Arthur	1 January 1836	Waterloo Point Via Port Arthur	77		Nicholson 1985
Waterloo Point*		Hobart*			151		
Port Arthur	14 January 1836	Waterloo Point	19 January 1836	Hobart	151		Nicholson 1985
Hobart	20 January 1836	Port Arthur	31 January 1836	Port Arthur	77		Nicholson 1985
Port Arthur	1 February 1836	Hobart			77		Nicholson 1985
Hobart*		Port Arthur*			77		
Port Arthur	14 March 1836	Hobart	March 1836	Hobart	77		Nicholson 1985
Hobart	Mid-March 1836	Port Arthur	7 April 1836	Port Arthur	77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	Mid-April 1836	Port Arthur	31 May 1836	Flinders Island	77		Nicholson 1985
Flinders Island*		Hobart*			431		
Hobart*		Flinders Island*			431		

Port Arthur	31 July 1836	Hobart			77	Possible refit	Nicholson 1985
Launceston	22 November 1836	Port Arthur			505		Nicholson 1985
Flinders Island*		Launceston*			236		
Launceston	16 December 1836	Flinders Island	28 December 1836	Hobart	236		Nicholson 1985
Port Arthur	12 January 1837	Launceston	Mid-January 1837	Hobart	505		Nicholson 1985
Hobart*		Port Arthur*			77		
Port Arthur	26 January 1837	Hobart	Late January 1837	Hobart	77		Nicholson 1985
Hobart*		Port Arthur*			77		
Port Arthur	17 February 1837	Hobart			77		Nicholson 1985
Hobart*		Port Arthur*			77		
Port Arthur	7 March 1837	Hobart	9 March 1837	Hobart	77		Nicholson 1985
Hobart	10 March 1837	Port Arthur	21 March 1837	Norfolk Bay	77		Nicholson 1985
Port Arthur	4 April 1837	Hobart	10 April 1837	Norfolk Bay	77		Nicholson 1985
Launceston	25 April 1837	Port Arthur			505		Nicholson 1985
Hobart*		Launceston*			565		
Port Arthur	2 June 1837	Hobart	7 Jun 1837	Flinders Island	77		Nicholson 1985

Flinders Island*		Port Arthur*			354		
Hobart	30 July 1837	Launceston and Flinders Island	4 August 1837	Eagle Hawk Neck	801		Nicholson 1985
Eagle Hawk Neck*		Hobart*			79		
Hobart	Aug 1837	Eagle Hawk Neck	19 August 1837	Flinders Island	79		Nicholson 1985
Port Arthur	20 August 1837	Hobart	August 1837	Hobart	77		Nicholson 1985
Launceston	27 September 1837	Port Arthur			505		Nicholson 1985
Hobart and Port Arthur*		Launceston*			565		
Launceston	11 November 1837	Hobart and Port Arthur	20 November 1837	Flinders Island	565		Nicholson 1985
Flinders Island*		Launceston*			236		
Sydney*		Flinders Island*			781		
Hobart	5 December 1837	Sydney	16 December 1837	Launceston & Port Philip	1182		Nicholson 1985
Port Arthur*		Hobart*			77		
Launceston	14 December 1837	Port Arthur	13 February 1838	Port Arthur	505		Nicholson 1985
Port Arthur*		Launceston*			505		
Port Philip*		Port Arthur*			756		

Port Arthur	14 February 1838	Port Phillip	16 February 1838	Hobart	756		Nicholson 1985
Hobart	17 February 1838	Port Arthur	23 February 1838	Port Arthur	77		Nicholson 1985
Port Arthur	24 February 1838	Hobart			77		Nicholson 1985
Hobart*		Port Arthur*			77		
Port Arthur	10 July 1838	Hobart	13 July 1838	Hobart	77		Nicholson 1985
Hobart*		Port Arthur*			77		
Port Arthur	26 July 1838	Hobart			77		Nicholson 1985
Hobart*		Port Arthur*			77		
Launceston	25 July 1839	Hobart			565		Nicholson 1985
Hobart*		Launceston*			565		
Launceston	24 September 1839	Hobart			565		Nicholson 1985
Hobart*		Launceston*			565		
Launceston	20 December 1839	Hobart	Early January 1840	Hobart	565		Nicholson 1985
Hobart	15 January 1840	Launceston	2 April 1840	Port Arthur	565		Nicholson 1985
Launceston	4 May 1840	Hobart			565		Nicholson 1985
Flinders Island*		Launceston*			236		
Launceston	25 July 1840	Flinders Island	10 August 1840	Flinders Island & Hobart	236		Nicholson 1985

Hobart	2 September 1840	Launceston and Flinders Island			431		Nicholson 1985
Flinders Island*		Hobart*			431		
Launceston	Late December 1840	Flinders Island			236	Long boat capsized and some lives lost close to shore	Nicholson 1985
Hobart*		Launceston*			565		
Launceston	20 May 1841	Hobart			565		Nicholson 1985
Hobart*		Launceston*			565		
Launceston	4 August 1841	Hobart			565		Nicholson 1985
Rocky Hills*		Launceston*			311		
Hobart	16 September 1841	Rocky Hills			196		Nicholson 1985
Launceston	12 October 1841	Hobart			565		Nicholson 1985
Hobart	2 June 1842	Launceston*			565		Nicholson 1985
Launceston	12 February 1843	Hobart	1 March 1843	Hobart	565	Man Lost Overboard	Nicholson 1985
Launceston	25 May 1844	Hobart*	10 June 1844	Hobart	565		Nicholson 1985
Hobart	3 December 1844		December 1844			Sold as Elizabeth Rebecca. Went whaling. Return 13/3/1845	Nicholson 1985

Hobart	13 March 1845	Whaling	25 March 1845	Otaheite and South Seas		Stranded at Trial Bay due to faulty rudder.	Broxam 1998
Total distance in kilometres					44,411		

Figure 21. *Charlotte* record of voyages

Charlotte

Type	Tonnage	Dockyard Built	Shipwright	Year Completed	Year out of service	Reason out of service	
One Masted Sloop	28 tons	Sarah Island Dockyard	David Hoy	1829	1843	Wrecked four-mile creek Tasmania	
Port	Day in	Last port	Day out	Destination Port	Distance	Notes	References
Hobart	October 26 1829	Macquarie Harbour	November 18 1829	Maria Island	410		Nicholson 1983
Maria Island*		Hobart*			143		
Hobart	November 26 1829	Maria Island	Late March/Early April 1830	Macquarie Harbour (did not arrive yet)	143		Nicholson 1983
Macquarie Harbour*		Hobart*			410		
Hobart	May 2 1830	Macquarie Harbour	June 1830	Launceston	410		Nicholson 1983
Launceston	July 2 1830	Hobart	July 15 1830	Maria Island	565		Nicholson 1983
Hobart	September 2 1830	Launceston	September 1830	Port Arthur	565		Nicholson 1983
Port Arthur*		Hobart*			77		
Hobart	September 19 1830	Port Arthur			77		Nicholson 1983
Port Arthur*		Hobart*			77		
Hobart	4 December 1830	Port Arthur	5 December 1830	Port Arthur	77		Nicholson 1983
Port Arthur*		Hobart*			77		

Hobart	Mid December 1830	Port Arthur	21 December 1830	Maria Island	77		Nicholson 1983
Maria Island*		Hobart*			143		
Flinders Island*		Maria Island*			302		
Hobart	4 March 1831	Flinders Island			431		Nicholson 1983
Bass Straights*		Hobart*			495		
Launceston	18 April 1831	Bass Straights		Gun carriage Island	105		Nicholson 1983
Gun Carriage Island*		Launceston*			221		
Hobart	31 August 1831	Bass Straights			495		Nicholson 1983
Great Island*		Hobart*			431		
Launceston	4 February 1832	Great Island	18 February 1832	Great Island	236		Nicholson 1983
Great Island*		Launceston*			236		
Hobart		Great Island*	25 September 1832	Furneaux Group via Port Arthur	431		Nicholson 1983
Port Arthur*		Hobart*			77		
Furneaux Group*		Port Arthur*			354		
Port Arthur	October 1832	Furneaux Group			354		Nicholson 1983
Tamar River	11 April 1833	Port Arthur*			77		Nicholson 1983
Launceston	29 May 1833	Hobart	July 17 1830	Furneaux Group	565		Nicholson 1983

Furneaux Group*		Launceston*			236		
Hobart	February 1834	Flinders Island	March 1834	Flinders Group	431		Nicholson 1985
Flinders Group*		Hobart*			431		
Launceston*		Flinders Group*			236		
Hobart	20 March 1835	Launceston		Eagle Hawk Neck	565		Nicholson 1985
Eagle Hawk Neck*		Hobart*			79		
Hobart		Eagle Hawk Neck*	March 24 1835	Port Arthur	79		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	29 March 1835	Port Arthur			77		Nicholson 1985
Sydney*		Hobart*			1182		
Hobart	31 May 1835	Sydney	June 1 1835	Sydney	1182		Nicholson 1985
Port Arthur	2 June 1835	Hobart			77		Nicholson 1985
Eagle Hawk Neck*		Port Arthur*			69		
Hobart	7 June 1835	Eagle Hawk Neck	11 June 1835	Flinders Island	79		Nicholson 1985
Flinders Island*		Hobart*			431		
Hobart	22 July 1835	Flinders Island	26 July 1835	Port Arthur	431		Nicholson 1985
Port Arthur	27 July 1835	Hobart	31 July 1835	Hobart	77		Nicholson 1985

Hobart	1 August 1835	Port Arthur			77		Nicholson 1985
Port Arthur	13 August 1835	Hobart	14 August 1835	Port Arthur	77		Nicholson 1985
Georges River*		Port Arthur*			241		
Hobart	2 September 1835	Georges River	4 September 1835	Port Arthur	318		Nicholson 1985
Port Arthur	5 September 1835	Hobart	7 September 1835	Hobart	77		Nicholson 1985
Hobart	8 September 1835	Port Arthur	12 September 1835	Port Arthur	77		Nicholson 1985
Port Arthur	13 September 1835	Hobart	16 September 1835	Eagle Hawk Neck	77		Nicholson 1985
Eagle Hawk Neck*		Port Arthur*			69		
Slopen/ Sloping Main*		Eagle Hawk Neck*			36		
Hobart	20 September 1835	Slopen/ Sloping Main	25 September 1835	Port Arthur	49		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	4 October 1835	Port Arthur			77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	14 October 1835	Port Arthur			77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	31 October 1835	Port Arthur			77		Nicholson 1985
Port Arthur*		Hobart*			77		

Hobart	8 November 1835	Port Arthur			77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	15 November 1835	Port Arthur			77		Nicholson 1985
Eagle Hawk Neck*		Hobart*			79		
Hobart	23 November 1835	Eagle Hawk Neck			77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	6 January 1836	Port Arthur	9 January 1836	Port Arthur	77		Nicholson 1985
Port Arthur	10 January 1836	Hobart			77		Nicholson 1985
Hobart	14 January 1836	Port Arthur	27 January 1836	Port Arthur	77		Nicholson 1985
Port Arthur	28 January 1836	Hobart			77		Nicholson 1985
George River*		Port Arthur*			241		
Hobart	11 February 1836	George River			77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	20 February 1836	Port Arthur			77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	28 February 1836	Port Arthur			77		Nicholson 1985
Port Arthur	12 March 1836	Hobart	14 March 1836	Eagle Hawk Neck	77		Nicholson 1985

Eagle Hawk Neck*		Port Arthur*			36		
Hobart	27 March 1836	Eagle Hawk Neck			79		Nicholson 1985
Recherche Bay*		Hobart*			89		
Hobart	3 May 1836	Recherche Bay	28 May 1836	Port Arthur	89		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	3 June 1836	Port Arthur			77		Nicholson 1985
Port Arthur	26 November 1836	Derwent			77		Nicholson 1985
Hobart	19 December 1836	Port Arthur			77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	1 January 1837	Port Arthur	11 January 1837	Launceston via Port Arthur	77		Nicholson 1985
Port Arthur	12 January 1837	Hobart	20 January 1837	Launceston	77		Nicholson 1985
George Town	Late January 1837	Port Arthur	Feb/Mar 1837	Hobart	451		Nicholson 1985
Hobart*		George Town*			526		
Launceston	14 April 1837	Hobart	21 April 1837	Hobart	565		Nicholson 1985
Hobart	1 May 1837	Launceston	22 November 1837	Port Phillip	565		Nicholson 1985
Port Phillip*		Hobart*			835		

Hobart	27 December 1837	Port Phillip	2 January 1838	Port Phillip	835		Nicholson 1985
Port Phillip*		Hobart*			835		
Launceston	15 February 1838	Port Phillip			479		Nicholson 1985
Hobart	29 March 1843	Launceston*	27 April 1843	Sydney	565	Re registered in Hobart	Broxam 1998
Sydney*		Hobart*			1182		
Hobart	16 June 1843	Sydney	6 July 1843	Sydney	1182		Broxam 1998
Sydney	19 July 1843	Hobart			1182	Wrecked at 4-mile creek Tasmania	Broxam 1998
Total distance in kilometres					26946		

Figure 22. *Shamrock* record of voyages

Shamrock record of voyages

Type	Tonnage	Dockyard Built	Shipwright	Year Completed	Year out of service	Reason out of service	
One-masted Cutter	31 tons	Sarah Island Dockyard	David Hoy	1832	1845	Wrecked Tasman Peninsula, Tasmania	
Port	Day in	Last port	Day out	Destination Port	Distance Kms	Notes	References
Launceston	October 8 1833	Hobart	Mid-October 1833	Hobart	565		Nicholson 1983
Hobart	October 26 1833	Launceston	November 24 1833	Flinders Island	565		Nicholson 1983
Port Arthur	November 25 1833	Hobart	28 November 1833	Flinders Island	77		Nicholson 1983
Flinders Island*		Port Arthur*			354		
Launceston	Mid December	Flinders Island	27 December 1833	Flinders Island	236		Nicholson 1983
Flinders Island*		Launceston*			236		
Launceston	January 11 1834	Flinders Island			236		Nicholson 1985
Flinders Island*		Launceston*			236		
Port Arthur	April 29 1834	Flinders Island	May 1 1834	Hobart	354		Nicholson 1985
Hobart	May 2 1834	Port Arthur	May 16 1834	Port Arthur	77		Nicholson 1985

Port Arthur*		Hobart*			77		
Flinders Island*		Port Arthur*			77		
Hobart	June 29 1834	Flinders Island			431		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	4 July 1834	Port Arthur	7 July 1834	Port Arthur	77		Nicholson 1985
Port Arthur	8 July 1834	Hobart	13 July 1834	Hobart	77		Nicholson 1985
Hobart	13 July 1834	Port Arthur			77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	30 July 1834	Port Arthur			77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	6 August 1834	Port Arthur	18 August 1834	Flinders Island	77		Nicholson 1985
Flinders Island*		Hobart*			431		
Hobart	Sept 1 1834	Flinders Island	5 September 1834	Port Arthur	431		Nicholson 1985
Port Arthur	September 6 1834	Hobart	7 September 1834	Hobart	77		Nicholson 1985
Hobart*		Port Arthur*			77		
Flinders Island*		Hobart*			431		
George Town	Mid-October 1834	Flinders Island	October 1834	Hobart	168		Nicholson 1985

Hobart	30 October 1834	George Town	12 November 1834	Flinders Island	526		Nicholson 1985
Flinders Island*		Hobart*			431		
Hobart	12 December 1834	Flinders Island	Mid December 1834	Eagle Hawk Neck	431		Nicholson 1985
Eagle Hawk Neck*		Hobart*			79		
Waterloo Point*		Eagle Hawk Neck*			234		
Hobart	3 January 1835	Waterloo Point			225		Nicholson 1985
Flinders Island*		Hobart*			431		
Hobart	4 February 1835	Flinders Island			431		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	21 February 1835	Port Arthur			77		Nicholson 1985
Hobart			February 28 1835	Port Arthur			Morning Star and Commercial Advertiser 3 March 1835
Port Arthur*		Hobart*			77		
Hobart	22 March 1835	Port Arthur	Late March 1835	Flinders Island	77		Nicholson 1985
Flinders Island*		Hobart*			431		
George Town	16 May 1835	Flinders Island	Late June 1835	King Island	168		Nicholson 1985

King Island*		George Town*			260		
Circular Head	9 May 1836	King Island*			123		Nicholson 1985
Derwent*		Circular Head*			637		
Port Arthur	26 November 1836	Derwent			77		Nicholson 1985
Hobart	19 December 1836	Port Arthur			77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	25 December 1836	Port Arthur			77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	1 January 1837	Port Arthur			77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	22 May 1837		23 May 1837	Waterloo Point			Nicholson 1985
Waterloo Point*		Hobart*			225		
Port Arthur	2 June 1837	Waterloo Point			150		Nicholson 1985
Hobart*		Port Arthur*			77		
Port Arthur	9 August 1837	Hobart	10 August 1837	Flinders Island	77		Nicholson 1985
Flinders Island*		Port Arthur*			354		

Hobart*		Flinders Island*			431		
Port Arthur	9 September 1838	Hobart	10 September 1838	Hobart	77		Nicholson 1985
Hobart*		Port Arthur*			77		
Flinders Island	mid-January 1839	Hobart*			431		Nicholson 1985
Circular Head	14 March 1839	Flinders Island*			274		Nicholson 1985
Port Phillip*		Circular Head*			329		
Hobart	12 July 1839	Port Phillip	July 15 1839	Port Philip	835		Nicholson 1985
Port Phillip*		Hobart*			835		
Hobart	1 August 1839	Port Philip	6 August 1839	Port Phillip	835		Nicholson 1985
Port Phillip*		Hobart*			835		
Hobart	30 August 1839	Port Phillip	3 September 1839	Port Phillip	835		Nicholson 1985
Port Phillip*		Hobart*			835		
Hobart	19 September 1839	Port Philip	21 September 1839		835		Nicholson 1985
Launceston	10 October 1839	Hobart	24 October 1839	Port Phillip	565		Nicholson 1985
Port Phillip*		Launceston*			479		
Hobart	14 November 1839	Port Philip	20 November 1839	Port Philip	835		Nicholson 1985
Port Phillip*		Hobart*			835		

Hobart	27 December 1839	Port Philip	30 December 1839	Port Philip	835		Nicholson 1985
Port Phillip*		Hobart*			835		
Hobart	28 January 1840	Port Philip	6 February 1840	Port Philip	835		Nicholson 1985
Port Phillip*		Hobart*			835		
George Town	7 March 1840	Port Philip	19 March 1840	Hobart	395		Nicholson 1985
Hobart	19 March 1840	George Town	23 March 1840	Port Philip	526		Nicholson 1985
Port Phillip*		Hobart*			835		
Hobart	19 April 1840	Port Phillip	24 April 1840	Port Philip	835		Nicholson 1985
Port Phillip*		Hobart*			835		
Adelaide*		Port Phillip*			882		
Hobart	20 June 1840	Adelaide	13 July 1840	Launceston	1557		Nicholson 1985
Launceston	18 July 1840	Hobart	1 August 1840	Hobart	565		Nicholson 1985
Launceston	1 August 1840						Nicholson 1985
Hobart	7 August 1840	Launceston	8 August 1840	Port Philip	565		Nicholson 1985
Port Phillip*		Hobart*			835		
Hobart	8 November 1840	Port Philip	18 November 1840	Port Philip	835		Nicholson 1985
Port Phillip*		Hobart*			835		
Hobart	29 January 1841	Port Philip			835		Nicholson 1985

Hobart	13 November 1841	Re registered from sale	13 November 1841	Melbourne		First vessel to trade from VDL to Geelong	Nicholson 1985
Melbourne*		Hobart*			833		
Hobart	18 December 1841	Melbourne	20 December 1841	Geelong	833		Nicholson 1985
Geelong*		Hobart*			835		
Hobart	23 January 1842	Geelong	29 January 1842	Melbourne	835		Nicholson 1985
Melbourne*		Hobart*			833		
Hobart	2 March 1842	Melbourne	3 March 1842	Geelong	833		Nicholson 1985
Geelong*		Hobart*			835		
Hobart	5 April 1842	Geelong	5 April 1842	Port Philip	835		Nicholson 1985
Geelong*		Hobart*			835		
Hobart	1 May 1842	Geelong	2 May 1842	Port Philip	835		Nicholson 1985
Port Phillip*		Hobart*			835		
Hobart	10 June 1842	Melbourne	13 June 1842	Port Philip	835		Nicholson 1985
Port Phillip*		Hobart*			835		
Hobart	14 July 1842	Melbourne			835		Nicholson 1985
Launceston	27 August 1842	Hobart			565		Nicholson 1985
Hobart*		Launceston*			565		
Launceston	6 October 1842	Hobart	15 October 1842	Hobart	565		Nicholson 1985
Hobart*		Launceston*			565		
Launceston	9 November 1842	Hobart	17 November 1842	Hobart	565		Nicholson 1985

Hobart*		Launceston*			565		
Launceston	5 January 1843	Hobart	11 January 1843	Hobart	565		Broxam 1998
Hobart	17 January 1843	Launceston	17 January 1843	Launceston	565		Broxam 1998
Launceston	2 February 1843	Hobart	8 February 1843	Hobart	565		Broxam 1998
Hobart	21 February 1843	Launceston	21 February 1843	Launceston	565		Broxam 1998
Launceston	6 March 1843	Hobart	9 March 1843	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	28 March 1843	Hobart	4 April 1843	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	28 April 1843	Hobart	6 May 1843	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	29 May 1843	Hobart	9 June 1843	Hobart	565	Stranded at whirlpool reach with no damage	Broxam 1998
Hobart*		Launceston*			565		
Launceston	3 July 1843	Hobart	7 July 1843	Hobart	565		Broxam 1998
Hobart	19 July 1843	Launceston	19 July 1843	Launceston	565		Broxam 1998
Launceston	12 August 1843	Hobart	19 August 1843	Hobart	565		Broxam 1998
Hobart	August 1843	Launceston	5 September 1843	Launceston	565		Broxam 1998

Launceston	7 September 1843	Hobart	11 September 1843	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	4 October 1843	Hobart	10 October 1843	Hobart	565		Broxam 1998
Hobart	October 1843	Launceston	17 October 1843	Launceston	565		Broxam 1998
Launceston	2 November 1843	Hobart	7 November 1843	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	30 November 1843	Hobart	5 December 1843	Hobart	565		Broxam 1998
Hobart	December 1843	Launceston	13 December 1843	Launceston	565		Broxam 1998
Launceston	21 December 1843	Hobart	23 December 1843	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	10 January 1844	Hobart	13 January 1844	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	31 January 1844	Hobart	4 February 1844	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	22 February 1844	Hobart	27 February 1844	Hobart	565		Broxam 1998
Hobart	March 1844	Launceston	13 March 1844	Launceston	565		Broxam 1998

Launceston	24 March 1844	Hobart	28 March 1844	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	22 April 1844	Hobart	27 April 1844	Hobart	565		Broxam 1998
Hobart	May 1844	Launceston	8 May 1844	Launceston	565		Broxam 1998
Launceston	27 May 1844	Hobart	30 May 1844	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	1 July 1844	Hobart	7 July 1844	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	24 July 1844	Hobart	31 July 1844	Hobart	565		Broxam 1998
Hobart	13 August 1844	Launceston	16 August 1844	Launceston	565		Broxam 1998
Launceston	28 August 1844	Hobart	4 September 1844	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	25 September 1844	Hobart	Sept 1844	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	14 October 1844	Hobart	21 October 1844	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	2 November 1844	Hobart	6 November 1844	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	24 November 1844	Hobart	27 November 1844	Hobart	565		Broxam 1998

Hobart*		Launceston*			565		
Launceston	11 December 1844	Hobart	13 December 1844	Hobart	565		Broxam 1998
Hobart	26 December 1844	Launceston	2 January 1845	Launceston	565		Broxam 1998
Launceston	17 January 1845	Hobart	24 January 1845	Hobart	565		Broxam 1998
Hobart	February 1845	Launceston	7 February 1845	Launceston	565		Broxam 1998
Launceston	14 February 1845	Hobart	15 February 1845	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	8 March 1845	Hobart	15 March 1845	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	2 April 1845	Hobart	8 April 1845	Hobart	565		Broxam 1998
Hobart*		Launceston*			565		
Launceston	24 April 1845	Hobart	2 May 1845		565	"Failed to arrive in Hobart wreckage found in late May at Tunnel Bay"	Broxam 1998
Total distance in kilometres					86,409		

Figure 23. Isabella record of voyages

Isabella

Type	Tonnage	Dockyard Built	Shipwright	Year Completed	Year out of service	Reason out of service	
Two-masted brig	124 tons	Sarah Island	David Hoy	1830	1845	Wrecked on bar at Port Albert	
Port	Day in	Last port	Day out	Destination Port	Distance in Kms	Notes	References
Hobart	January 18 1831	Sydney			1182		Colonial Times January 21 1831
Launceston	13 July 1831	Hobart	August 1831	George Town	565		Nicholson 1983
Port Darymple	15 August 1831	Launceston*			65		Nicholson 1983
Hobart*		Port Darymple*			65		
Launceston	2 January 1832	Hobart	January 1833	Hobart	565		Nicholson 1983
Hobart*		Launceston*			565		
Launceston	27 July 1833	Hobart			565		Nicholson 1983
Hobart*		Launceston*			565		
Launceston	30 January 1833	Hobart			565		Nicholson 1983
Hobart	14 March 1833	Launceston*	14 March 1833	Port Arthur	565		
Port Arthur	8 May 1833	Derwent			77		Nicholson 1983
Great Island*		Port Arthur*			354		

Launceston	3 July 1833	Great Island	1 August 1833	New Zealand and Sydney	236		Nicholson 1983
New Zealand and Sydney*		*Launceston			4448		
Hobart	Sept/Oct 1833	Sydney			1182		Nicholson 1983
Port Arthur	Early October 1833	Hobart*	11 October 1833	Hobart	77		Nicholson 1983
Hobart	12 October 1833	Port Arthur	22 October 1833	Port Arthur	77		Nicholson 1983
Port Arthur	23 October 1833	Hobart	24 October 1833	Derwent	77		Nicholson 1983
Hobart	11 November 1833	Port Arthur*			77		Nicholson 1983
Launceston	29 November 1833	Hobart	24 December 1833	Sydney	565		Nicholson 1983
Sydney*		Launceston*			982		
Hobart	3 February 1834	Newcastle	Sydney		982		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	5 March 1834	Port Arthur	8 March 1834	Port Arthur	77		Nicholson 1985
Port Arthur	9 March 1834	Hobart	Mid-March 1834	Port Arthur	77		Nicholson 1985
Hobart	Mid-March 1834	Port Arthur	21 March 1834	Port Arthur	77		Nicholson 1985
Port Arthur	22 March 1834	Hobart	29 March 1834	Hobart	77		Nicholson 1985

Hobart	30 March 1834	Port Arthur	11 April 1834	Port Arthur	77		Nicholson 1985
Port Arthur	12 April 1834	Hobart	16 April 1834	Hobart	77		Nicholson 1985
Hobart	17 April 1834	Port Arthur	20 April 1834	Norfolk Bay	77		Nicholson 1985
Norfolk Bay*		Hobart*			66		
Hobart	27 April 1834	Norfolk Bay	1 May 1834	Port Arthur	66		Nicholson 1985
Port Arthur	2 May 1834	Hobart	16 May 1834	Hobart	77		Nicholson 1985
Hobart	16 May 1834	Port Arthur	30 May 1834	Port Arthur	77		Nicholson 1985
Port Arthur	31 May 1834	Hobart	7 June 1834	Hobart	77		Nicholson 1985
Hobart	10 June 1834	Port Arthur	24 June 1834	Port Arthur	77		Nicholson 1985
Port Arthur	25 June 1834	Hobart	27 June 1834	Flinders Island	77		Nicholson 1985
Flinders Island*		Port Arthur*			354		
Launceston	31 June 1834	Flinders Island			236		Nicholson 1985
Great Island*		Launceston*			236		
Launceston	31 August 1834	Great Island			236		Nicholson 1985
Flinders Island*		Launceston*			236		
Launceston	24 September 1834	Flinders Island	19 October 1834	Port Arthur	236		Nicholson 1985
Port Arthur*		Launceston*			505		

Hobart	17 October 1834	Port Arthur*			77		Nicholson 1985
Port Arthur	20 October 1834	Hobart	29 October 1834	Hobart	77		Nicholson 1985
Hobart	30 October 1834	Port Arthur	Early November 1834	Port Arthur	77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	16 November 1834	Port Arthur	Mid December 1834	Port Arthur	77		Nicholson 1985
Port Arthur*		Hobart*			77		
Sydney*		Port Arthur*			1105		
Launceston	6 January 1835	Sydney	1 February 1835	Sydney	982		Nicholson 1985
Sydney*		Launceston*			982		
Launceston*		Sydney*			982		
Hobart	10 February 1835	Launceston			565		Nicholson 1985
Slopen Main*		Hobart*			49		
Hobart	5 March 1835	Slopen Main			49		Nicholson 1985
Hobart			March 10 1835	Port Arthur			Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	13 March 1835	Port Arthur			77		Nicholson 1985
Kangaroo Island*		Hobart*			1467		
Hobart	Late March 1835	Kangaroo Island	14 April 1835	Wreck of GEORGE III in	1467		Nicholson 1985

				D'Entrecasteaux Channel			
Wreck of George III*		Hobart*			78		
Hobart	15 April 1835	George III wreck	4 June 1835	Port Arthur	78		Nicholson 1985
Port Arthur	5 June 1835	Hobart			77		Nicholson 1985
Hobart	18 June 1835	Port Arthur			77		Morning Star and Commercial Advertiser June 23, 1835
George Town	29 June 1835	Hobart			526		Nicholson 1985
Hobart*		George Town*			526		
Port Arthur	2 September 1835	Hobart	3 September 1835	Hobart	77		Nicholson 1985
Hobart	3 September 1835	Port Arthur	21 September 1835	Launceston	77		Nicholson 1985
Launceston	2 October 1835	Hobart			565		Nicholson 1985
Hobart	10 November 1835	Launceston			565		Nicholson 1985
Port Arthur*		Hobart*			77		
Launceston	15 January 1836	Port Arthur			505		Nicholson 1985
Hobart	6 April 1836	Launceston			565		Nicholson 1985

Launceston	17 June 1836	Hobart*			565		Nicholson 1985
Hobart*		Launceston*			565		
Port Arthur	Early Nov 1836	Hobart	5 November 1836	Hobart	505		Nicholson 1985
Hobart*		Port Arthur*			77		
Port Arthur	26 November 1836	Derwent	29 November 1836	Hobart	77		Nicholson 1985
Hobart*		Port Arthur*			77		
Launceston*		Hobart*			565		
Port Arthur	12 January 1837	Launceston	15 January 1837	Hobart	505		Nicholson 1985
Hobart	16 January 1837	Port Arthur	8 February 1837	Launceston	77		Nicholson 1985
Launceston	Mid-February 1837	Hobart	Late February 1837	Port Philip	565		Nicholson 1985
Port Phillip*		Launceston*			479		
Port Arthur	17 April 1837	Port Phillip*			758		Nicholson 1985
Hobart*		Port Arthur*			77		
Port Arthur	Mid-May 1837	Hobart	20 May 1837	Hobart	77		Nicholson 1985
Hobart	20 May 1837	Port Arthur	24 May 1837`	Port Arthur	77		Nicholson 1985
Port Arthur	31 May 1837	Hobart	7 June 1837	Mt Louis	77		Nicholson 1985
Mt Louis*		Port Arthur*			18		
Hobart	Mid-June 1837	Mt Louis	16 June 1837	Port Arthur	18		Nicholson 1985

Port Arthur	17 June 1837	Hobart	22 June 1837	Norfolk Bay	77		Nicholson 1985
Norfolk Bay*		Port Arthur*			69		
Hobart*		Norfolk Bay*			66		
Port Arthur	Late July 1837	Hobart	28 July 1837	Hobart	77		Nicholson 1985
Hobart	30 July 1837	Port Arthur	8 August 1837	Port Arthur	77		Nicholson 1985
Port Arthur	9 August 1837	Hobart	15 August 1837	Hobart	77		Nicholson 1985
Hobart*		Port Arthur*			77		
Port Arthur	20 August 1837	Hobart	3 September 1837	Hobart	77		Nicholson 1985
Hobart*		Port Arthur*			77		
Port Arthur	17 September 1837	Hobart	18 September 1837	Hobart	77		Nicholson 1985
Hobart	19 September 1837	Port Arthur	13 October 1837	Port Arthur and Launceston	77		Nicholson 1985
Port Arthur	15 October 1837	Hobart	21 October 1837	Launceston (Put Back to safety Cove)	77		Nicholson 1985
Safety Cove*		Port Arthur*			2		
Port Arthur	23 October 1837	Safety Cove (Bound for Launceston)	October 1837	Continued to Launceston	2		Nicholson 1985
Launceston*		Port Arthur*			505		
Hobart	23 November 1837	Launceston	7 December 1837	Port Arthur	565		Nicholson 1985

Port Arthur	31 December 1837	Hobart	6 January 1838	Port Philip	505		Nicholson 1985
Hobart	7 January 1838	Port Arthur	17 January 1838	Port Arthur	77		Nicholson 1985
Port Arthur	2 February 1838	Hobart	2 February 1838	Hobart	77		Nicholson 1985
Hobart	Early February 1838	Port Arthur	9 February 1838	Port Arthur	77		Nicholson 1985
Port Arthur	10 February 1838	Hobart	Mid-February 1838	Hobart	77	May have stayed in Port Arthur for refit	Nicholson 1985
Hobart*		Port Arthur*			77		
Port Arthur	9 April 1838	Hobart	12 April 1838	Hobart	77		Nicholson 1985
Hobart	13 April 1838	Port Arthur	21 April 1838	Port Arthur	77		Nicholson 1985
Port Arthur	22 April 1838	Hobart	25 April 1838	Hobart	77		Nicholson 1985
Hobart*		Port Arthur*			77		
Port Arthur	12 May 1838	Hobart	Mid-May 1838	Hobart	77		Nicholson 1985
Hobart*		Port Arthur*			77		
Port Arthur	23 May 1838	Hobart	Late May 1838	Hobart	77		Nicholson 1985
Hobart*		Port Arthur*			77		
Port Arthur	14 June 1838	Hobart	19 June 1838	Hobart	77		Nicholson 1985
Hobart	20 June 1838	Port Arthur	22 August 1838	Port Arthur	77		Nicholson 1985

Port Arthur	23 August 1838	Hobart	24 August 1838	Norfolk Bay Mines	77		Nicholson 1985
Norfolk Bay Mines*		Port Arthur*			69		
Port Arthur	5 September 1838	Norfolk Bay	5 September 1838	Launceston	69		Nicholson 1985
Launceston	Late September 1838	Port Arthur			505		Nicholson 1985
Port Arthur*		Launceston*			505		
Hobart	11 March 1838	Port Arthur			77	Saved capsized boat	Nicholson 1985
Launceston	2 September 1839	Hobart	7 November 1839		565		Nicholson 1985
Port Arthur*		Launceston*			505		
Hobart	January 1840	Port Arthur	27 February 1840	Launceston	77		Nicholson 1985
Launceston	12 March 1840	Hobart			565		Nicholson 1985
Hobart	Late March 1840	Launceston	14 April 1840	Port Arthur	565		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	1 August 1840	Port Arthur*			77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	2 September 1840	Port Arthur			77		Nicholson 1985

Launceston	7 November 1840	Hobart			565		Nicholson 1985
Hobart*		Launceston*			565		
George Town	31 January 1841	Hobart			526	Ran aground and found to leaky to repair.	Nicholson 1985
Hobart*		George Town*			526		
Launceston	23 October 1841	Hobart			565		Nicholson 1985
Hobart*		Launceston*			565		
Launceston	7 January 1842	Hobart			565		Nicholson 1985
Hobart*		Launceston*			565		
Launceston	26 April 1842	Hobart			565		Nicholson 1985
Hobart*		Launceston*			565		
Launceston	25 January 1842	Hobart	8 July 1842	Hobart	565	For repairs to Hobart. Towed by steamers	Nicholson 1985
Betsey Island*		Launceston*			562		
Derwent	Late August 1842	Betsey Island			3	Struck reef and refloated	Nicholson 1985
Launceston*		Derwent*			565		
Hobart	8 May 1843	Launceston			565		Nicholson 1985
Launceston	24 May 1843	Hobart			565		Nicholson 1985
Launceston	4 December 1843		14 December 1843	Flinders Island			Nicholson 1985

Flinders Island*		Launceston*			236		
Hobart*		Flinders Island*			431		
Launceston	10 February 1844	Hobart	27 February 1844	Flinders Island	431		Nicholson 1985
Flinders Island*		Launceston*			236		
Launceston	17 June 1844	Hobart	30 June 1844	Flinders Island	565		Nicholson 1985
Flinders Island*		Launceston*			236		
Hobart	6 July 1844	Flinders Island	6 July 1844	Maria Island	431		Nicholson 1985
Maria Island*		Hobart*			143		
Hobart*		Maria Island*			143		
Launceston	6 October 1844	Hobart	13 October 1844	Port Arthur	565		Nicholson 1985
Port Arthur*		Launceston*			505		
Hobart	November 1844	Port Arthur	November 1844	Port Arthur	77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	November 1844	Port Arthur	December 1844	Port Arthur	77		Nicholson 1985
Port Arthur*		Hobart*			77		
Hobart	13 December 1844	Port Arthur	December 1844	Maria Island	77		Nicholson 1985
Maria Island*		Hobart*			143		
South Port*		Maria Island*			163		
Hobart	1 February 1845	Southport			77		Nicholson 1985

Port Arthur*		Hobart*			77		
Hobart	1 March 1845	Port Arthur	2 March 1845	Norfolk Bay Mines	77		Nicholson 1985
Norfolk Bay Mines*		Hobart*			66		
Hobart	1 July 1845	Norfolk Bay Mines*	12 July 1845	Port Albert	66	Wrecked on Port Albert bar on first commercial voyage.	Nicholson 1985
Total distance in kilometres					55,688		

Figure 24. Fanny/Wallaby record of voyages

Fanny/Wallaby

Type	Tonnage	Dockyard Built	Shipwright	Year Completed	Year out of service	Reason out of service	
Three-masted barquentine	284 ton	Port Arthur	John Watson/David Hoy	1837	1851	Wrecked	
Port	Day in	Last port	Day out	Destination Port	Distance kms	Notes	Source
Port Arthur	24 May 1838					Collision with *Vansittart*. *Vansittart* was damaged	Nicholson 1985
Port Arthur	2 August 1838		3 August 1838	Hobart		Sea trials in harbour/ Maiden Voyage to Hobart	Nicholson 1985
Hobart	4 August 1838	Port Arthur			77	Sold and registered as Wallaby	Nicholson 1985
Hobart	October 1838		3 December 1838	George Town and Port Philip		Sold to Geo Watson and Alf Garrett	Nicholson 1985
George Town	10 December 1838	Hobart	11 December 1838	Port Philip	526		Nicholson 1985
Port Phillip*		George Town			395		

Melbourne	16 December 1838	Launceston			480		Syme, 1984
George Town	23 December 1838	Port Philip	29 December 1838	Port Philip	395		Nicholson 1985
Melbourne	2 January 1839	George Town	6 January 1839	George Town	421		Syme, 1984
George Town	11 January 1839	Port Philip	11 January 1839	Port Philip	421		Nicholson 1985
Melbourne	16 January 1839	George Town	21 January 1839	George Town	421		Syme, 1984
George Town	22 January 1839	Port Philip	24 January 1839	Port Philip	421		Nicholson 1985
Melbourne	27 January 1839	George Town	31 January 1839	George Town	421		Syme, 1984
George Town	2 February 1839	Port Philip	7 February 1839	Port Philip	421		Nicholson 1985
Melbourne	14 February 1839	George Town			421		Syme, 1984
George Town	19 February 1839	Port Philip	20 February 1839	Port Philip	421		Nicholson 1985
Melbourne	February 1839	George Town	26 February 1839	Hobart	421		Syme, 1984
Hobart	5 March 1839	Port Philip	6 April 1839	Whale Fishery	421		Nicholson 1985
Wilsons Promontory	April 1839	Hobart	19 August 1839	Hobart	608		Sexton 1990
Hobart*		Wilsons Promontory*			608		
Portland Bay*		Hobart*			996		

Hobart	19 August 1839	Portland Bay	4 September 1839	Whale Fishery	996		Nicholson 1985
Hobart	28 October 1839	Recherche Bay/Fishery	27 November 1839	Port Phillip	89		Nicholson 1985
Melbourne	26 December 1839	Hobart			833		Syme, 1984
Launceston	4 January 1840	Port Philip	11 January 1840	Port Philip	479		Nicholson 1985
Melbourne	15 January 1840	Launceston	18 January 1840	Launceston	480		Syme, 1984
Launceston	20 January 1840	Port Philip	24 January 1840	Port Philip	480		Nicholson 1985
Melbourne	27 January 1840	Launceston	28 January 1840	Launceston	480		Syme, 1984
Launceston	2 February 1840	Port Philip	8 February 1840	Port Philip	480		Nicholson 1985
Melbourne	11 February 1840	Launceston	24 February 1840	Hobart	480		Syme, 1984
Hobart	5 March 1840	Port Philip	7 April 1840	Whaling voyage (Encounter Bay)	835		Nicholson 1985
Wilsons Promontory	18 July 1840	Hobart			608		Sexton 1990
Hobart	23 October 1840	"Fishery/Bay whaling Kangaroo Island	sealers cove (Wilsons Promenade)"		608		Nicholson 1985
"New Zealand	Lord Howe Island*"		Hobart*		2282		

Hobart	31 October 1842	"New Zealand Lord Howe Island whaling"	27 March 1842	Java and Whaling	2282		Broxam 1998
Hobart	23 August 1843	South Seas whaling	24 August 1843	Whaling	?		Broxam 1998
Hobart	6 November 1843	Whaling Grounds	24 November 1843	Whaling	?		Broxam 1998
Hobart	12 March 1844	Whaling	20 March 1844	Whaling	?		Broxam 1998
Hobart	14 December 1844	South Seas whaling	8 April 1845	Whaling	?		Broxam 1998
Hobart	28 November 1845	Whaling	28 December 1845	South Seas Whaling	?		Broxam 1998
Hobart		Whaling	7 January 1845	Whaling	?		Broxam 1998
Hobart	5 January 1848	Whaling	22 July 1848	Whaling	?		Broxam 1998
Hobart	18 March 1849	South Seas whaling	17 April 1849	South Seas Whaling	?		Broxam 1998
Hobart	8 September 1849	Whaling	17 September 1849	South Seas	?		Broxam 1998
Hobart	27 December 1849	Whaling	2 February 1850	Whaling	?		Broxam 1998
Hobart	31 December 1850	Whaling	10 February 1851	Whaling	?	Wrecked at Fanning's Island 21/10/51. Crew arrived	Broxam 1998

						in Sydney on *Helen Marr*.	
Total distance in kilometres					19,707		

Figure 25. *Resolution* record of voyage

Resolution

Type	Tonnage	Dockyard Built	Shipwright	Year Completed	Year out of service	Reason out of service	
Schooner	60		Jonathan Griffiths	1827	1832	Lost	
Port	Day in	Last port	Day out	Destination Port	Distance in kilometres	Notes	References
Launceston	18 June 1827					Launched	Nicholson 1983
Sydney*		Launceston*			982		
Launceston	20 August 1827	Sydney	1 September 1827	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	18 October 1827	Sydney	October 1827	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	7 December 1827	Sydney	17 December 1827	Hobart	982		Nicholson 1983
Hobart	30 December 1827	Launceston	17 January 1828	Launceston	565		Nicholson 1983
Launceston	26 January 1828	Hobart	9 February 1828	Kangaroo Island	565		Nicholson 1983
Kangaroo Island*		Launceston*			1076		
Sydney*		Kangaroo Island*			1712		

Launceston	8 May 1828	Sydney	21 May 1828	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	22 June 1828	Sydney	4 July 1828	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	15 August 1828	Sydney	3 September 1828	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	23 October 1828	Sydney			982	Dismantled and laid up till next harvest	Nicholson 1983
Sydney*		Launceston*			982		
Launceston	March 1829	Sydney*	8 April 1829	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	26 May 1829	Sydney	8 June 1829	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	9 August 1829	Sydney	20 August 1829	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	11 October 1829	Sydney	29 October 1829	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Hobart	9 December 1829	Sydney	30 December 1829	Launceston	1182		Nicholson 1983
Launceston	6 January 1830	Hobart	January 1830	Sydney	565		Nicholson 1983
Sydney*		Launceston*			982		

Launceston	6 April 1830	Sydney	April 1830	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	25 May 1830	Sydney	6 June 1830	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	29 July 1830	Sydney	7 August 1830	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	30 September 1830	Sydney	28 October 1830	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	11 December 1830	Sydney	22 December 1830	Hobart	982		Nicholson 1983
Hobart	2 January 1831	Launceston	22 January 1831	Launceston	565		Nicholson 1983
Launceston	27 January 1831	Hobart	13 February 1831	Hobart	565		Nicholson 1983
Hobart	27 February 1831	Launceston	17 March 1831	Launceston	565		Nicholson 1983
Launceston	1 April 1831	Hobart	14 April 1831	Circular Head	565	Meant for Port Jackson but lost a mast and made for Circular Head under Jury Rig.	Nicholson 1983
Circular Head	18 April 1831	Launceston	26 April 1831	George Town	220		Nicholson 1983
George Town	27 April 1840	Circular Head	21 May 1831	Sydney	190		Nicholson 1983
Sydney*		George Town*			952		

Launceston	9 July 1831	Sydney	21 July 1831	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	30 August 1831	Sydney	6 September 1831	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	21 October 1831	Sydney	12 November 1831	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	8 January 1832	Sydney	2 February 1832	Hobart	982		Nicholson 1983
Hobart*		Launceston*			565		
Launceston	3 April 1832	Hobart	26 April 1832	Hobart	565		Nicholson 1983
Hobart	13 May 1832	Launceston	25 May 1832	Launceston	565		Nicholson 1983
Launceston	13 June 1832	Hobart	26 June 1832	Sydney	565		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	3 September 1832	Sydney	23 September 1832	Sydney	982		Nicholson 1983
Sydney*		Launceston*			982		
Launceston	1 November 1832	Sydney	6 November 1832	Twofold Bay	982	Left Launceston and was lost	Nicholson 1983
Total distance in kilometres					53773		

Figure 26. *Zephyr* record of voyages

Zephyr

Type	Tonnage	Dockyard Built	Shipwright	Year Completed	Year out of service	Reason out of service	
Cutter	63	Pittwater	John Gray	1851	1852	Wrecked	
Port	Day in	Last port	Day out	Destination Port	Distance Kms	Notes	References
Geelong	21 January 1852	Hobart			835		The Argus 24 January 1852 page 2
Geelong			2 February 1852	Hobart			
Hobart*		Geelong*			835		
Geelong	7 April 1842	Hobart*			835		The Argus 10 April 1852 page 4
Geelong			16 April 1852	Hobart			The Argus 19 April 1852 page 4
Hobart	24 April 1852	Geelong			835		Colonial times 27 April 1852 page 3
Geelong*		Hobart*			835		
Hobart	3 May 1852	Geelong			835		Launceston Examiner 5 May 1852 page 2
Geelong		Hobart*	29 May 1852	Hobart	835		The Argus 1 June 1852 page 2
Hobart	8 June 1852	Geelong			835		Launceston Examiner 9 June 1852 page 2
Geelong	25 June 1852	Hobart			835		Colonial Times 9 July 1852 page 2
Hobart	13 July 1852	Geelong			835		Launceston Examiner July 21, 1852, page 3

Total distance in kilometres		8350