



Affinity with steam engines and locomotives and Quakers Hill was consolidated in 1864 when the railway was extended to Richmond to cater for transport of timber being milled in the district. A small wooden platform was built at Quakers Hill in 1872 and the station was named Douglas Siding. Mr Douglas operated a sawmill nearby. Douglas Siding was renamed Quakers Hill on 30th March 1905.

Today, HMAS NIRIMBA possesses a small stretch of railway line on which is driven a vintage steam locomotive. This segment of NIRIMBA activities forms part of a global picture of much endeavour in steam engineering and machinery restoration which has occurred in HMAS NIRIMBA over the past 28 years.

Because of the close affinity between the basic steam engine and naval engineering training, hobby steam engineering has been encouraged from the early days of HMAS NIRIMBA. In the 1960's Lieutenant Graham Vagg RAN, an Engineer Officer in HMAS NIRIMBA, led the apprentices in the building of a workable steam racing car.

In 1960, a miniature steam engine was designed and constructed in HMAS NIRIMBA and put to work hauling miniature carriages for the benefit of visiting children. The miniature locomotive was modelled as a 4-6-2 Pacific class which has no official ancestry. The name came from the wheel configuration of the locomotive. A complete miniature railway with ancillary services of watering point, points, bridges, platform etc, was built by this early band of enthusiasts and the miniature railway still operates in HMAS NIRIMBA today. Leading members of that project were Mr Eric Scanlan, Mr Ron Payne, Mr Ron Sell, Petty Officer Bennetts (now Lieutenant), Mr Bob Meadows and Mr Bruce Brewer.

These activities led to formation of the HMAS NIRIMBA Steam Club. A tremendous amount has been achieved in this area of endeavour in HMAS NIRIMBA and the continued efforts of the officers, civilian instructors, senior sailors and apprentices who have taken part in the club's activities have brought much credit on HMAS NIRIMBA and on the Royal Australian Navy. Such has been the standard of the craftsmanship of the workers and instructors of the Steam club that the club is known statewide and has featured in several television shows on a national basis.

The Steam club made moves to acquire the first of a series of vintage locomotive engines of varying types in 1969 when a badly deteriorated Foden 1923 C type steam truck was located at the Austral Blue Metal Company at Emu Plains, New South Wales. Although the Foden appeared to be beyond hope of repair, the intrepid Steam club members proceeded to acquire it. Enthusiastic support and encouragement was given to the project by Captain J W Stead, Commanding Officer, Commander Jack McNamara, Mr Charles Loines, Civilian Instructor, Mr Bruce McDonald of the Marsden Steam Museum, Goulburn and Leading Engineering Mechanic David Twiss. The latter, underwent mechanician training, was commissioned and returned to HMAS NIRIMBA as Senior Technical Instructor in the Marine Engineering School and President of the HMAS NIRIMBA Steam club. The Foden was brought to HMAS NIRIMBA and restoration work commenced in 1969 under the direction of Mr Bruce Brewer and the Mechanician Class then in NIRIMBA. Work stopped in 1970 and virtually nothing was done until May 1973 when a project group was formed to tackle the restoration job as a hobby. Lieutenant George Polding, Warrant Officer MTP Tony Hills, many of the civilian instructors and apprentices began work in earnest on the Foden's restoration.

The Foden weighs five and a half tonnes and has solid rubber tyres and it is chain driven. Specifications and spare parts had to be obtained from the makers - Foden Pty Ltd, who were still in business at the time. At the time of negotiations for supply of necessary spares, a brief



history of the vehicle was obtained. It had been used for general haulage in Armidale NSW, then by an Inverell sawmill to winch logs out of a valley. Later it was brought to Emu Plains where it was used simply to generate steam until it fell into disuse in the early 1950's. Thus it remained on its last working site until rescued by HMAS NIRIMBA steam 'buffs'.

Unlike internal combustion energy, steam develops its greatest power when the engine starts. Therefore the engine is permanently coupled to the back wheels - in the Foden's case by a massive chain - and there is no need for a clutch. There is an arrangement which is used to change driving power from simple to compound. Double high pressure is fitted to cater for emergency use only, such as starting heavy loads, manoeuvring in awkward places or whenever a temporary use of high power is required.

The maker's guidebook, titled, "***Instructions for Working the 'Foden' Steam Wagon***" contains many homely pieces of advice in addition to technical maintenance instructions. For example, the makers postulate:

'We cannot impress too strongly on the owners of these wagons, that to get the best result, and to work the wagon at its highest money-making capacity, a good driver is essential' and - 'the man who never cleans his engine seldom finds anything wrong until he gets a smash up'.

A succinct description of the Foden appeared in the News Sheet of the New South Wales Steam Engine Preservation Society Volume 3 Number 4, in December 1973 which reads,

"The wagon has a double crank compound reciprocating steam engine which is supplied by a Foden type C locomotive boiler. The wagon is fitted with three road gears with a roller chain drive to a back axle mounted differential and is mounted on four solid tyred wheels with cast steel 'Y' spokes".

The work entailed in restoration of the Foden steam wagon was a complete engine overhaul, boiler re-tube, front tube plate replacement, smoke box reconstruction, complete renewal of bodywork and new front tyres.

The missing steering wheel was replaced using naval initiative by utilising a control valve wheel from the Battle Class Destroyer HMAS ANZAC. The tyres of solid rubber posed something of a challenge, being 36 inches by 30 inches by 8 inches solid rubber - unobtainable. A substitute tyre was obtained, split into two rims and vulcanised to do the job.

Work was completed in 1974 and the Foden was registered by the Department of Motor Transport as a commercial veteran vehicle. Since then, uniformed members of NIRIMBA who have devoted much time and effort to the project have been Lieutenant Commander C P Smith, Commander P J Hugonnet, Lieutenant P Helyer, Lieutenant David Twiss, Petty Officer MTP Steve Hoskins, Warrant Officer MTP Tony Hills, Warrant Officer MTP Nev Sorrenson, Lieutenants Graham McDonald, Steve Goode and Ian Pickering and many Apprentices.

The Foden has continually been the star attraction at fetes, commemorative historical occasions and other gala functions ashore. Particularly in the Western Districts of Sydney, the Foden is a star attraction at festivities of the various Shires. The longest solo trip which the Foden has undertaken was to Garden Island in October 1981 when the truck was driven from HMAS NIRIMBA to take part in Navy Week 1981 celebrations.

The truck departed HMAS NIRIMBA at 8 am on Thursday 1st October 1981 under military command of Lieutenant David Twiss and carrying a crew and duty Steam Club crew for the Garden Island exhibition consisting of:

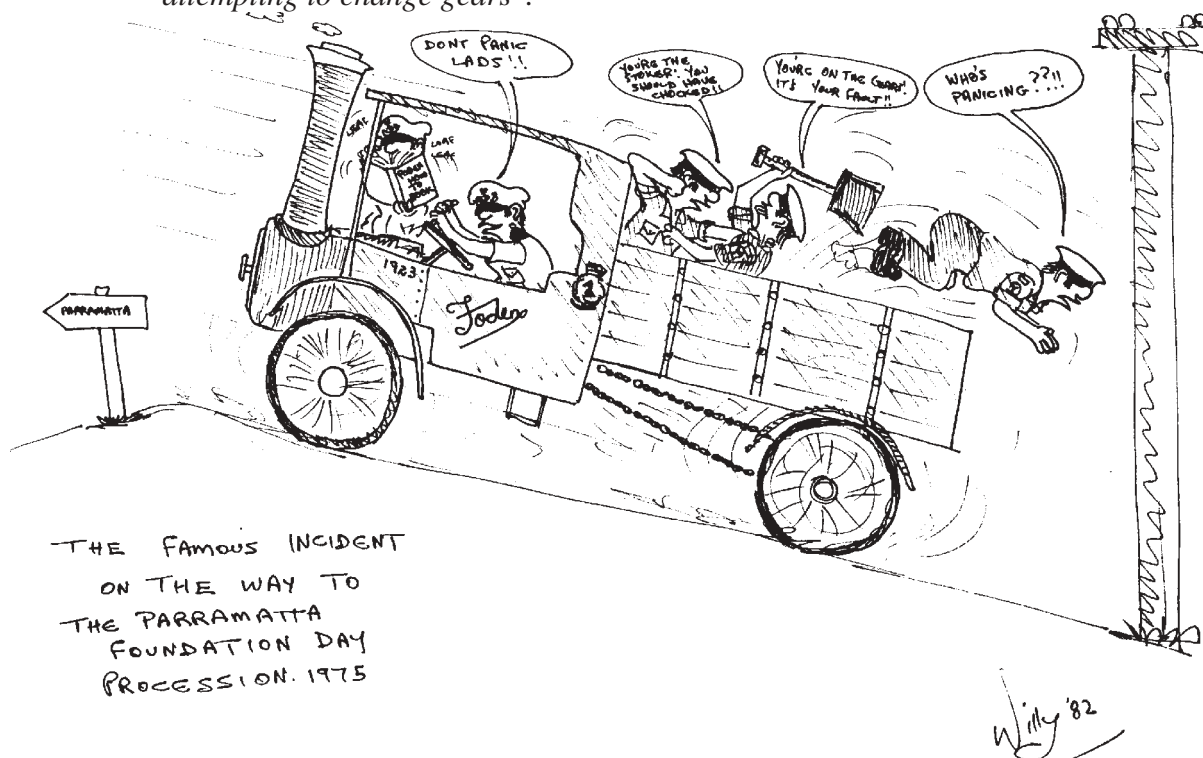
CPO Kimbal, Petty Officer Willard, Petty Officer Hoskins, Petty Officer Hayes, together with Apprentices Douglas, Turner, Brown, Ammer, Lodge, Nagarajan, Butler and Coder.



The route was via Kellyville, Epping and Gore Hill to the Harbour Bridge, thence via the Sydney Town Hall to Garden Island. The journey involved an overnight stop at Gore Hill where accommodation was provided by ABN2. A Police escort was provided for the entire journey. The trip went off without incident and provided much publicity for the RAN. The truck's progress was monitored and reported on four television stations and on the ABC radio.

The truck has been involved in a couple of mishaps on public roads. On 1st November 1975 whilst proceeding to Parramatta Foundation Day procession, the truck stopped on the brow of a hill and before low gear could be engaged, the truck rolled backwards. Lieutenant P Helyer immediately attempted to wind on the handbrake - without success and Warrant Officer Tony Hills steered the truck into the left side of the road where the vehicle struck an electric light pole bringing down the wires attached to the pole. Other crew members were AMTP C Thompson (stoking the boiler) and AMTP A Goff on the gears. The decision of the inquiry into the accident was to recommend -

"Chocks should be placed behind the wheels in a similar situation before attempting to change gears".



On 28th October 1978, the truck was returning from Parramatta when it developed symptoms of broken or rolled piston rings and finally ceased to operate.

Despite these early vicissitudes the Foden steam truck is operating most successfully and is a highlight of the district 18 years after those stalwarts of steam engineering began its restoration.

In August 1981, Channel Ten's Simon Townsend produced a film of the HMAS NIRIMBA Steam Truck which was featured on thirty capital city and regional television stations over the ensuing weeks on 'Simon Townsend's Wonder World'. Star of the show was Lieutenant David Twiss.

In 1974, the HMAS NIRIMBA Steam club obtained a 16 horsepower, 12 ton, Garrett portable steam engine from the Dominion Mining Company, Tingha, near Inverell, NSW. The Garrett was completely restored by the NIRIMBA Steam club and is now on exhibition outside the Marine Engineering Demonstration Building onboard HMAS NIRIMBA.

In October 1975 the Steam club acquired another steam engine from the Dominion Mining Company at Inverell. This was an 8 ton portable Marshall steam engine. Lieutenant P Helyer, Warrant Officer Tony Hills and Petty Officer Steve Hoskins were very active in furthering the



aims of the Steam club and had made preliminary negotiations with the Manager of Dominion Mining, Mr Noonan. Steve Hoskins, former Petty Officer MTP and a very active member of the NIRIMBA Steam club had the longest continuous record of association with the Club of any of its members. This engine was also completely restored by the Steam club members and remained in HMAS NIRIMBA until 1977 when the inimitable Steam club members arranged to swap it for a 1901 Buffalo Pitts traction steam engine from Gunnedah.

Acquisition of the Buffalo Pitts engine came about by a rather round about method. The property 'Kurial' near Gunnedah in New South Wales had been newly taken over jointly by two couples, the Keiperts and the Moores. A neighbour of theirs, a former naval officer, found out about the Buffalo Pitts engine lying idle on the property and told NIRIMBA about it. The engine had been driven from Armidale to Kurial in the late 1920's for use in a sawmill operated by Kurial's former owner Mr Reg Jaeger. The engine was not popular on the property and was considered to be 'dangerous'.

The NIRIMBA Steam Club, then under the direction of Warrant Officer Neville Sorenson, arranged to swap the Marshall stationary engine with the property owners for the Buffalo Pitts because the Pitts is self driven, but it would take a team of Clydesdales to move the Marshall. The Kurial property owners happily swapped engines and put the Marshall to work on the property when they reopened the long silent sawmill. The Buffalo Pitts traction engine is a 1901 model, thirteen ton, thirteen horsepower, single cylinder traction engine. It has been fully restored to all its former glory and now may be seen on exhibition outside the Marine Engineering Demonstration Building in HMAS NIRIMBA.

In a later chapter on the building of the steel masthead sloop NIRIMBA (Chapter 26) I have written of the dogged determination and dedication of the civilian and uniformed personnel of HMAS NIRIMBA who were associated with that mammoth task. Although that task took six years to complete, in the face of seemingly insurmountable obstacles, - the saga of the acquisition of NIRIMBA's latest Steam club possession is worthy of the highest accolades for its central actors. This prize is the fifteen tonne vintage steam locomotive railway engine 'Invicta' built in the United Kingdom in 1907.

At precisely 12 noon on Friday 26th June 1981, a huge RAAF prime mover and low loader rolled through the gates of HMAS NIRIMBA bearing the last of the engines of the Queensland cane locomotives which had spent the past 70 years hauling sugar cane to the Millaquin, Invicta, Bingera and Qunaba sugar mills at Bundaberg Queensland. The last eight cane train locomotives were put up for tender in 1981. The sugar company received 42 tenders for the eight locos, from railway historical societies, tourism entrepreneurs and private collectors. Because of its record of restoring old steam engines to near mint condition, its non profit motives and its general enthusiasm for steam, the NIRIMBA Steam club was granted the oldest of the locos. The Bundaberg Sugar Company returned NIRIMBA's tender of one hundred dollars and the club presented the money to the RANR Cadet Unit TS BUNDABERG.

The NIRIMBA Steam club was informed of its successful tender early in 1981 and under the direction of the enthusiastic Lieutenant David Twiss, immediately began to plan the difficult task of bringing a fifteen tonnes engine fifteen hundred kilometres south from Bundaberg to NIRIMBA. There was no shortage of volunteers for the adventurous project and in the end, 27 officers, sailors and apprentices made the return trip in a bus and two backup vehicles.

The RAAF provided the transport when it was discovered that a fuel tank had to be transported from Amberley to Darwin and that the Sydney based transporter would be without a load returning from Amberley to Sydney. The return trip was almost uneventful except for the tremendous interest shown by people en route and the ever present media stopping the convoy. The expedition camped at Nambour, Ballina and Newcastle on the return journey.

INVICTA has been fully restored and a short track of about fifty yards has been laid for her.



INVICTA is a highlight of a visit to HMAS NIRIMBA and her majestic presence brings lasting credit on all those who worked to give her a home in HMAS NIRIMBA.



Rear Admiral Frank L George CBE, RAN (Rtd), NIRIMBA's first CO is saluted by CPOQMG Col Dowd and POSV Kevin Kennedy at the official opening of the Nirimba Historical collection - May 1984 Mrs George centre.
Uniforms of the New South Wales Corps loaned by 'Old Sydney Town' collection