

Builder's photograph of the new Improved Meyer, No.7, Barclay 1303 of 1912, probably taken in early December 1912. Richard Horne advises that, as new, the loco 'was painted dark green, picked out with red lines', but the lines are only just perceptible here. The photograph clearly shows several of the main features of Meyer locomotives. It is questionable whether No.7 is sitting on rails in this photograph. Photo: RT Horne Collection

The new Improved Meyer – a sorry saga

by JS Clennett

This is the story of arguably the most unsuccessful locomotive ever to come to Australia, a locomotive that was built for one of the country's largest but most unsuccessful timber milling enterprises of the time; an enigmatic locomotive with a history that has been mostly lost for nearly a century: No.7 — The new Improved Meyer.

Background

Over the second half of the nineteenth century, the harvesting of Tasmania's southern forests had been in the hands of small to medium sized, generally family-based enterprises, but in 1898 the Government sought entrepreneurs to come forward with proposals to exploit this major hardwood resource on a much grander scale. As a result, two new British companies submitted grandiose proposals, but by 1904 the first was on its way to an ignoble demise, and by 1905 the other, not long into production, had been sold.

The history of these companies is complex and intertwined, too complex to cover in detail here. Briefly though, the Tasmanian Timber Corporation (TTC) was intending to build "... the largest (mill) in the Southern Hemisphere" on the western shores of Port Esperance, in the far south of the island.¹ Known as the (second) Hopetoun Mill, it was destined to barely reach its teens.

The other, the Huon Timber Company (HTC), was to build its 'super mill' near Geeveston, well up the Huon River Estuary, about 25 kilometres north of Hopetoun. At least it managed to reach its majority, but only just, and after a tumultuous and very costly life.

Each poured huge funds into developing its enterprise, including into extensive and extravagant steam-powered steel-railed tramways, and into other costly infrastructure, severely

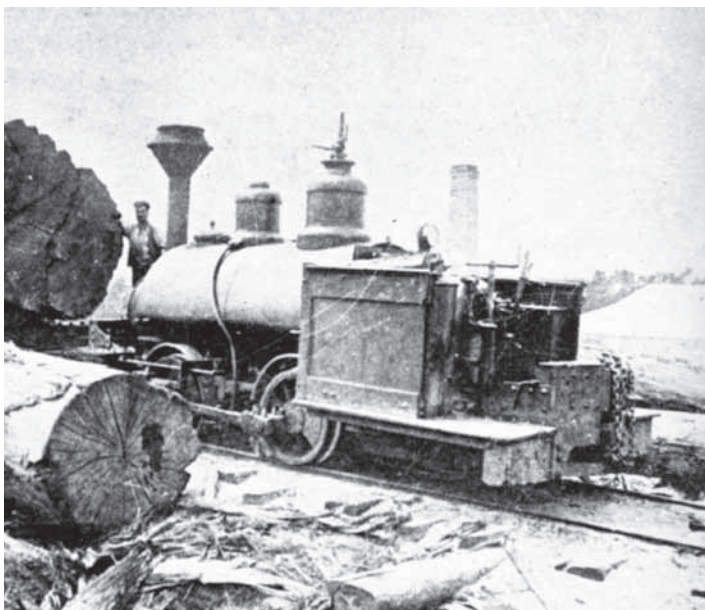
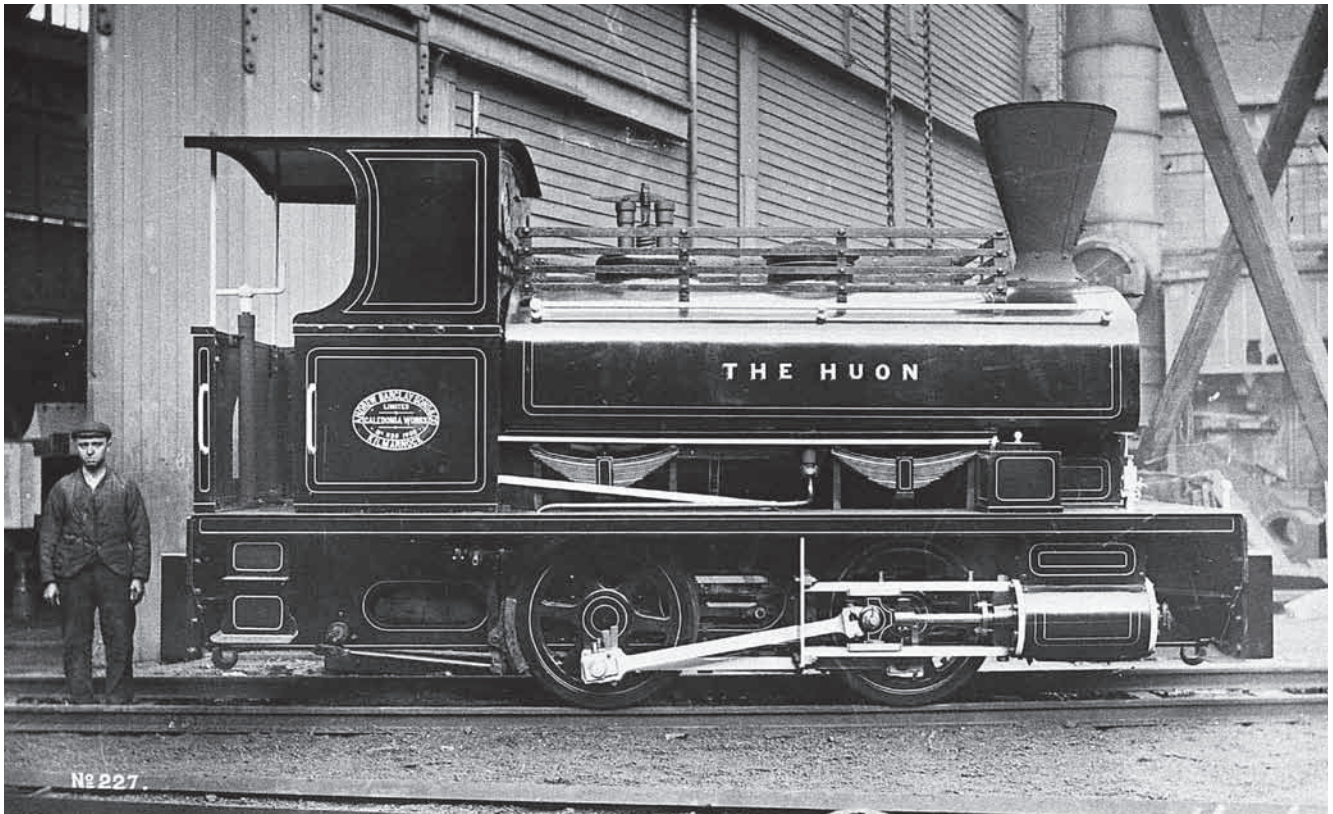
and permanently compromising any chances of profitability.

Commencing production in March 1901, the TTC was in trouble almost from the start, with management ructions within a year, and a need for restructuring as the Tasmanian Hardwood Corporation (THC) in 1906. It then fell under the management control of the HTC in May 1908, but after a major fire, entered liquidation the following July. In the wash-up, ownership of the Hopetoun operations, and many other assets, was assumed by the HTC. Then, in early 1912, the HTC became a subsidiary of Millars Timber & Trading Company (Millars). After again being hit by fire, the Hopetoun Mill was to effectively close at the outbreak of war. It was then just 13 years old. The Millars-controlled HTC continued to operate the Geeveston super-mill, with several breaks, until 1925.

Our story is about an unusual locomotive that arrived new at Port Esperance in early 1913 from the Scottish builder Andrew Barclay Sons & Co Limited. It was described as a new Improved Meyer articulated locomotive (1303 of 1913), and was to become known as No.7.

The Meyer type of locomotive had been developed originally by a Frenchman, Jean Meyer, in 1868. It was an articulated type in which two bogies were placed directly under the main locomotive frame, in much the same way as with today's diesel locomotives. This resulted in two important features. The first was to increase the flexibility of the wheel arrangement over that of a conventional rigid-framed locomotive, enabling access to track with tighter curves. The second was to allow for a larger firebox in the space between the two bogies, and therefore the development of more steaming capacity.² The additional power was utilised by making each bogie an engine in its own right, as with the Garratt, and with all axles being powered good traction could be achieved, allowing haulage over steeper grades.

On the other hand, the designer might be tempted to increase the axle load in order to exploit the full haulage capacity of the larger boiler and with no pony trucks to share this load, the track could suffer badly as a result. Such was to be the case with No.7.

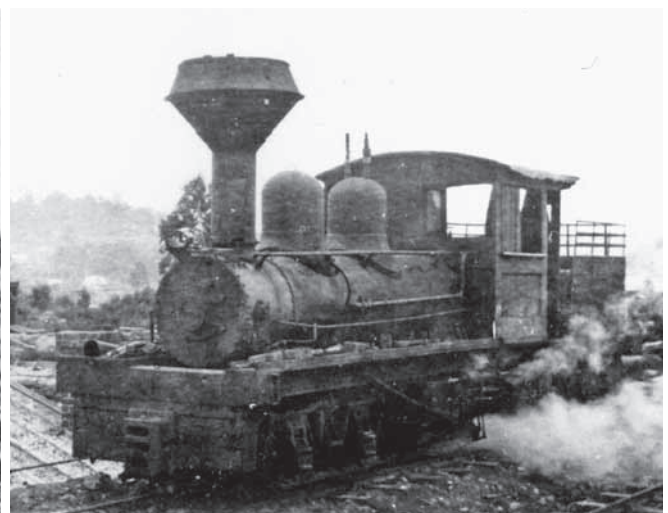


Above: Builder's photograph of Andrew Barclay 0-4-OST (959 of 1902) THE HUON, the original workhorse at the Huon Timber Company's operations at Geeveston. This was a particularly successful locomotive, and may have been the reason that the company went to Andrew Barclay in 1912 to source a bigger locomotive to supplant the two small and very old units at Hopetoun, and to assist the smallish Shay that had gone there new in 1908. Photo: RT Horne Collection

Left: Baldwin 0-4-OST 7108 of 1884 BALDWIN was missing the top and rear of its wooden cab when photographed working on the Hopetoun tramway early last century. Photo: John Buckland collection

Below left: Manning Wardle 0-4-OST STANLEY (371 of 1871, rebuilt Black Hawthorn 1892) on the Hopetoun tramway circa 1901. Photo: Ken Milbourne collection

Below right: Lima Shay 2029 of 1907, a 28-ton Class B machine, arrived at Hopetoun in early 1908. When the line there closed seven years later, the Shay moved to the Huon Timber Company's line at Geeveston, where it was photographed in action. Photo: Peter Sellars collection



At some stage in the early part of the twentieth century, following the general success of Meyer locomotives built by the Leeds firm Kitson & Co, Andrew Barclay determined to enter this market. They produced a catalogue outlining the basic specification features for two classes of Meyers, the BB class 0-4-4-0 and the GG class 0-6-6-0, each with six sub-classes relating to different cylinder diameter/stroke combinations, and each of these with three sub-sub classes related to gauges of one metre, 3ft 6in and 4ft 8½in, a grand total of 36 variants. These designs were promoted as Improved Meyer locomotives.

The Hopetoun locomotives

From the outset it was the declared intention of the TTC at Hopetoun to construct and equip a tramway system that would dramatically overshadow all that had been built in the industry in Tasmania before. Just over 21 miles of relatively well laid steel-railed track was built over the years, yet the future might well have been gleaned from the two curious small locomotives initially acquired. These were far from up-to-date.

The first was a 30 year-old Manning Wardle 0-4-0ST (371 of 1871) *STANLEY*, which had seen service on a colliery line in England before being rebuilt in 1892 by Black Hawthorn, while the other was a sixth- or seventh-hand Baldwin 0-4-0ST (7108 of 1884) *BALDWIN*, purchased from the Tasmanian Government Railways (TGR).

By about the end of 1906, the tramway was reaching well into the forest, and one line in particular, the Wobbly Creek branch, presented quite steep grades against the load, grades that the original small duo would not easily handle. Consequently, and in spite of the company's parlous state, it purchased a new B-class wood-fired Lima Shay (2029 of 1907). This arrived early in 1908, just in time for the cascade of events that led to the liquidation of the THC, and to the assumption of the mill's ownership by the HTC. Although its workload was quite limited, just four years later, and with the HTC firmly in Millars sights, the need was seen for another new locomotive.

The new Improved Meyer locomotive

There has long been confusion about the history of the Improved Meyer articulated locomotive imported by HTC in 1913. Kostaglou,³ in his Report Number 5, noted that '*it never saw service given that it was too heavy for the latest tramline additions. It was mothballed almost upon arrival*', and Beck's research of DLI boiler records found a report that the locomotive was inspected on 5 March 1913, that stated: '*This is a new engine just imported*'.⁴ However both of these references would now appear to be over-simplifications. In the case of the boiler records, the critical word would seem to be 'inspected'.

Another reference to it was in an article in the *ARHS Bulletin* No.560 (June 1984), in which it was noted that it was transferred to a Philippines subsidiary of Millars, either directly or via Western Australia, in about 1925.⁵ At first impressions, this would seem to have indicated that its mothballing in the Huon must have lasted for some time. As the Hopetoun operations had long since closed by then, the question arose as to whether it was sent to the HTC's other operation at Geeveston for storage, or had gone elsewhere.

The answer has recently come to light with the discovery of an important file in the Archives Office of Tasmania (AOT), a file with entries dating from May 1912 to July 1918 that has brought to light the strained early history of this enigmatic, and as it turns out, nomadic locomotive.⁶

The first year – design, construction and testing

Just why a company experiencing such severe financial and operating difficulties at its Hopetoun mill would want to buy another, as yet unbuilt locomotive from the other side of the world is hard to comprehend, and what transpired over the next six or seven years only adds to that enigma. Nevertheless, on 6 May 1912, the HTC's London office interviewed a representative of Andrew Barclay with the prospect of making such a purchase. This was not seven weeks after the restructuring of the Millars organisation that included the acquisition of the HTC, and perhaps raises the question of how much Millars knew of the matter. In any event, it set in train something of a debacle.

Andrew Barclay responded just two days later by making a detailed offer to '*Specification No 6313/18 modified as under*' to supply a locomotive of the Meyer type '*carried on two four wheeled bogies*'.⁷ They stated that it would '*develop a draw bar pull of 24000 lbs on the level*' and that this would be more than adequate to handle the HTC's stated requirement to be able to pull a load of 85 tons (not including the locomotive) up an incline of 1 in 15. The offer included for the laying of a line of the correct gauge (3ft 6in) at Barclay's Kilmarnock works in order to carry out such a test, with the locomotive in steam, and with a spring gauge between the load and the engine. Delivery was to be '*FOB Glasgow, packed for shipment in the usual manner . . . in about twenty-two weeks*'.⁸ The HTC's London office accepted this offer, although what input the Tasmanian connection had is not known.

The "Improved Meyer" locomotive had two bogies, each an engine in its own right, placed directly under the main frame, as opposed to the central boiler cradle arrangement found in the Garratt type. In some improved Meyers, the cylinders on each bogie were inboard, restricting the space available for the firebox, but with others, including No.7, the cylinders were placed at the rear ends of the bogies. This had both advantages and disadvantages. Allowing a larger firebox enabled greater steam generation to drive both engines, but at the same time the steam delivery pipes to the rear engine were lengthened and made more complicated.

Because of the articulation of the bogies, the front and rear steam pipes required flexibility, and so were provided with a number of ball joints. The lubrication of these became a contentious issue with No.7. The ball joints in these pipes could be subjected to heavy wear under working pressure, and it was the lubrication of these, whether to be forced or not, that became a serious issue during the latter stages of the construction of the locomotive. Exhaust steam from the rear-facing rear-engine cylinders was discharged through a second chimney, rising up through the fuel bunker. This reduced the risk of steam exposure to men in shunting operations.

The Andrew Barclay marketing thrust was far from successful, as the makers only managed orders for five individual locomotives in 25 years, from 960 in 1903 to 1956 in 1928. Of these five, only two were to any of their three 'standard' gauges (both being of 3ft 6in gauge), the others being of 2ft 5½in, 2ft, and 3ft gauge, and there were many other variations to the catalogue specifications. For example, the cylinders were rearward facing on three, with a second (rear) chimney rising through the fuel bunker, and inward facing on the other two, with no such chimney.

The second and third were both of 3ft 6in gauge and were built in 1912/13, 1299 *JOAN* (with inward facing cylinders) for the May Morn Estates in New Zealand, and 1303 No.7 (with rearward facing cylinders) for the HTC.¹⁰ At that time, Andrew Barclay was still finding its way with the

Meyer concept, *JOAN* had been 'designed' by Howard Butters, an engineer and a director of the May Morn Estates in New Zealand, and was apparently built by Barclay 'at cost' on condition that it could build other locomotives to the same design.¹¹ They never did so. The modifications proposed to the HTC were apparently to be made from the design of the heaviest of the proposed BB class, and as it turned out, these were significant, particularly in relation to its weight. It is perhaps also notable that this particular design was based on the 18th of the 36 variants in the catalogue, coinciding with the specification number quoted by Barclay in their offer: No.6313/18.

It is certainly significant that the catalogue stipulated that the minimum weight of rail for this sub-class should be 55 lbs per yard, and it is extremely unlikely that much, if any of the rail at Hopetoun would have met that criterion.

The letter of offer to the HTC of 8 May 1912 set down quite comprehensive basic specification and performance details, the most relevant of which were as follows. The underlining is by the present author and indicates points that were to prove contentious one way or another over the next decade or so.

Price: £2210 delivered FOB Glasgow (as it happened shipping was ex-London, see below)

Draw bar pull: 24000lbs 'on the level'

Draw bar pull: 17200lbs on a grade of 1:15

Cylinders: 12½ inches dia (modified from 12") by 18 inches stroke (do 16")

Wheel Diameter: 2'-8" (modified from 3'-0")

Wheel base: rigid 6'-0", total 25'-9"

We desire to draw your attention to the short total wheel base . . . which would contribute to safety and comfort when working on curves. We would point out also that the load is distributed with great equality among the eight driving wheels. . . Engine to take curves of 1½ chains easily when at speed

Heating surfaces: tubes 932 square feet, firebox 96 square feet, total 1028 square feet

Grate area: 18 square feet

Water capacity: 1000 gallons

Fuel capacity: 2 tons of wood

Weight empty: 33 tons 10 cwt

Weight loaded: 40 tons 0 cwt

Working pressure: 180 psi

Walschaert radial valve gear

The quoted price of £2200 was to be loaded quite a lot by the time No.7 had arrived at Port Esperance. Andrew Barclay's final figure was £2595 10s 0d, including extras, spares and carriage to Glasgow, while inspection fees, freight to Port Esperance via London and Hobart, insurances, duties etc, increased it to £3768 14s 7d.¹²

In mid-December 1912, and on the recommendation of the Engineering Department of the Western Australian Government through its Agent-General, the HTC wrote to one GF Mathews Esq of Manchester, notifying him that Andrew Barclay had just completed a locomotive for them, and seeking his services for 'inspecting' testing set down for Friday 20 December.¹³ This letter included the load capacity criteria specified in the letter of offer. He was also asked to make any observations on anything connected with the work that came under his notice, although it was acknowledged that he would not be able to undertake any detailed inspection of the workmanship and finish of the locomotive. The letter was signed, as were others, by Robt L Allen, Secretary *pro tem*, under the letterhead of the Huon Timber Company, Pinners Hall, London EC.¹⁴

Mathews reported back the day after the test, describing the

procedure used, and stating that while the specified drawbar load was achieved in some respects, the test methods used were somewhat crude, but on the safe side of the load.¹⁵ The test was undertaken on track of:

*. . . 80-90 ft. on a 3 chain curve. Quite sufficient to make a test, but not quite enough to demonstrate by continuous pulling the efficiency of the engine. . . I expressed to the firm that the track laid was hardly long enough, though it might demonstrate the tractive effort of the engine in a starting effort, on short length, but not a sustained one which would have been much better for testing.*¹⁶

In respect to 'other observations', he made special comment that he thought that the steam ball joints should have more effective lubrication, forced if possible, that the steam pipe to the rear engine be lagged, and that the steam chests be lagged over.

Mathews concluded his report by recommending that there should be a further inspection, in steam, to establish that the HTC 'get(s) the engine up to your expectations even if you are satisfied with the draw-bar tests, as stated above'. Clearly, Mathews had his misgivings about the locomotive, yet his recommended further inspection did not eventuate. Even at this stage, Mathews referred to the locomotive as No.7, and that number was boldly painted on its sides at Kilmarnock.

On 22 December, an inspector from the Scottish Boiler Inspection Insurance Co Ltd was present at a hydraulic test of the boiler to a proof pressure of 270psi, and subsequently certified it for a working pressure of 180psi.¹⁷ This was the last of a series of inspections that the company had undertaken during the latter stages of construction of the boiler, and was in all likelihood the only boiler test carried out until at least mid-1915, and probably not until after it left Tasmania, some time after July 1918.

The hectic next two weeks or so, with Christmas intervening, saw a continuing flow of communications between the HTC and Mathews, and between the HTC and Andrew Barclay about the adequacy or otherwise of the load test, of the need or not for forced lubrication of the steam pipe ball joints, and so on.

In a terse telegram dated 27 December 1912 Andrew Barclay guaranteed its locomotive thus:

*We undertake make all details satisfactory, Gaurantee (sic) Engine will maintain specified drawbar pull. Consider lubrication steam ball joints by siphon as provided satisfactory. Forced lubrication unnecessary, we could fit charging you time and material if instructed at once.*¹⁸

The HTC immediately forwarded the contents of this telegram on to Mathews, and asked him what he thought about the matter of forced lubrication of the ball joints.¹⁹ Mathews replied the next day in some detail, and with obvious frustration:

In recommending forced lubrication to steam ball joints, I do so following best practice. Messrs Kitson & Co., Leeds, who have made a type of engine similar to this one, and call it the Kitson-Meyer type, Messrs Beyer Peacock & Co., with the Garratt, and other makers of articulated Engines, all put forced lubrication to these joints: that Messrs Barclay & Co. do not do so and now think it unnecessary, I attribute to want of knowledge or perhaps economy. Therefore I should advise you having forced lubrication fitted . . .

*. . . As mentioned in my previous letters, the chief trouble (in) these articulated engines has been the ball joints for steam pipes, first in keeping them tight, 2nd. in lubricating them, and preventing undue wear on the nose end where they are continually rubbing. The siphon lubricator suggested is no good, it cannot force oil into these parts against 180 lbs. of steam, and I told the makers of this fact.*²⁰

These comments were somewhat timely and ironical. At the time, the world's first two Garratts, K1 and K2, had been in service in Tasmania for about three years, and their operators, the Tasmanian Government Railways (TGR) were already committed to four more, and so had more experience than



Adamsons Peak looking westwards from the Dover Jetty in 2006. The twin peaks, and the flat ridge to their right have long been known as 'the Cow, the Calf and the Pasture'. On the shoreline below the Calf was the original Hopetoun Mill, burnt out in 1898, while the Tasmanian Timber Corporation's Hopetoun mill and wharf were to the left and below. The tramway route from both of these mills ran up the green slope to the right, to harvest the forest on the hills in the right middle-ground and beyond.
Photo: JS Clennett

many others with the lubricating of such ball joints, a fact that was to come to light a few more years into No.7's history.

This period was obviously difficult for all the parties. In the end, it came to a head on the penultimate day of 1912, when the HTC found it had no option but to accept Barclay's guarantees on these two critical issues, or it would miss a crucial shipping date from London.

The final instructions to Andrew Barclay were conveyed by letter on 30 December 1912, quoting several telegrams of the same date:

... After carefully considering the circumstances, we telegraphed you today as follows:- 'Relying on your guarantee (sic) will accept locomotive if you can rail it to London not later than 7th January. Shall we engage freight.'

And received the following reply:- 'Regret cannot dispatch before holidays could rail Kilmarnock seventh if instructed this afternoon is steamer closing sixteenth January not available.'

We immediately telegraphed as under:- 'Rail locomotive from Kilmarnock on 7th. We are reserving space on that understanding.'

*The steamer now offering is the s.s. 'Ruahine', the representatives of which stipulate that the locomotive shall be alongside by the 10th prox. We trust that you will accordingly make every effort to fulfill your promise ...'*²¹

Everything at sea

And so Mathews was politely thanked and paid off,²² and No.7, 'packed for shipment in usual manner', left Kilmarnock by rail for London on either 7 or 8 January 1913 in order to be sure to be alongside for loading onto the SS *Ruahine* before she sailed.²³

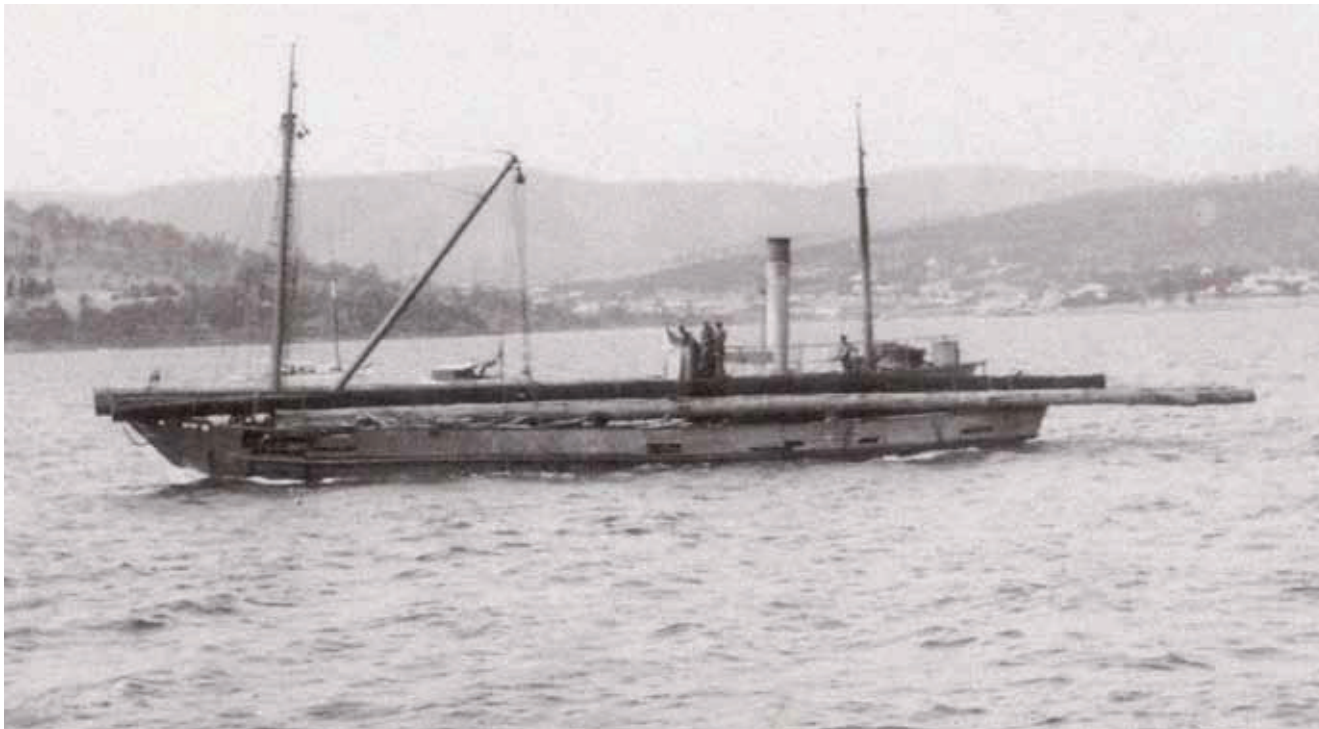
The SS *Ruahine* (10,758 tons) was a passenger and cargo ship of the New Zealand Shipping Co, and had been regularly on the run from London, via Cape Town and Hobart to New Zealand ports since about 1893. She would have presented

the best opportunity for such a direct delivery, one that would not be repeated, at least not by that ship, for about six months.

After a fast trip of six and a half weeks, the SS *Ruahine* duly berthed in Hobart on the evening of 26 February 1912,²⁴ and No.7 was unloaded. It was then moved around the wharves for re-loading onto a local vessel for the trip to Port Esperance, but it is not known how soon it made that last stage of delivery.

And here lies another enigma. The boiler records referenced above indicate that No.7 was 'inspected' on 5 March (the following Wednesday), and not that it was 'tested'. What constituted this inspection or where it took place, Hobart or Port Esperance, is not clear, but for there to have been a comprehensive inspection at Port Esperance seems very unlikely. The first possible steamer for Port Esperance, the *Dover*, sailed from Hobart on Saturday 1 March, and the next, the *Togo* on the following Monday. Neither of these vessels would have been ideal for what would have been quite heavy crates. It is probable that another vessel was used, and perhaps the steam scow *Glenturk* (see account below) was the most likely, but no other sailings from Hobart to Port Esperance were listed in the *Mercury* shipping news until after 5 March. Thus, in the unlikely event that the *Dover* was used, the earliest arrival at the mill wharf would have been late on that Saturday. A Sunday unloading was extremely unlikely, and so for a boiler test to have taken place on the Wednesday would not seem practical. There is also strong evidence, as will be seen below, that No.7 was not even unpacked for more than another three years.

This author's contention is that the probable scenario was that the 'inspection' took place in Hobart, and constituted only a viewing of documentation, including the Kilmarnock boiler-test certificate, with, at most, a cursory viewing of the packed-up locomotive. In any event, the appropriate time to



The Glenturk was most likely the vessel used to transport No.7 from Hobart to Port Esperance after its arrival on the SS Ruahine in late February 1913. It was certainly the vessel used to take No.7 back to Hobart on the first stage of its abortive trip to the Launceston Railway Workshops in 1915.
Photo: Maritime Museum of Tasmania

pressure-test the boiler on a locomotive would surely be once it had been assembled, or at least once its boiler had been appropriately set up, and this could hardly have taken place at Port Esperance by 5 March.

Further, it is very clear that the urgency that had seen No.7 sent from Kilmarnock in such a rush to catch the ss *Ruahine*, and against the serious misgivings on the part of Mathews, had by now evaporated. The HTC's operations at Hopetoun were in serious trouble, and No.7 apparently remained in its crates at Port Esperance, staying there until the end of March 1915, over two years later.

Locomotive for sale

The next chapter in this saga came in September 1914, when the HTC offered to sell No.7 to the Tasmanian Public Works Department (PWD):

New Barclay Meyer Locomotive

We beg to enclose herewith duplicate invoice of the above locomotive, together with statement showing the total landed cost at Port Esperance (£3768/14/7)

As stated by the writer we are prepared to recommend to our directors in London to sell the locomotive at cost price - and will cable them at any time if you so desire.

*We shall be pleased to let you peruse all the original documents relating to the locomotive.*²⁵

The PWD then asked the TGR to assist in the assessment of the locomotive prior to any purchase, and a letter-report followed from the Chief Mechanical Engineer of the TGR, WR Deeble, to the Engineer-in-Chief of the PWD, TW Fowler, headed 'Ballast Engine'.²⁶ This was neither overly positive nor negative, and had only been prepared on the basis of limited drawings and specifications, the locomotive itself remaining unpacked at Port Esperance. However there were one or two points that Deeble was critical about, including his preference for forced lubrication to the steam-pipe ball joints (one of Mathew's criticisms), that he saw problems with articulated locomotives using saturated steam, and that there

may need to be some modifications made. He also noted that the axle loads would each be 10 tons. Calculated anticipated performance figures were listed for the locomotive under noted conditions hauling trains at 10 mph around 3 chain radius curves, on various grades. His tonnage for a 1 in 15 grade was 80 tons, ie 5 tons, or 6% below the original specified figure.

Ten days later, the PWD Engineer for Railway Construction, FG Butler, sent a memorandum to his superior, Fowler, strongly recommending the purchase of the locomotive.²⁷ This memorandum gives light to the reasons that the purchase was being seriously considered.

In particular the PWD had been charged by the Government with the construction of a number of 'hinterland' branches running southwards from the north west coast of the island up into rich, but steep farming country, notably the Nietta, Preolinn and Penguin tramways. Butler saw the locomotive as ideal to replace the PWD's two current construction locomotives:

These E. Class locomotives are very old, and have to be thoroughly repaired after a few months work . . (and) . . are a constant expense to maintain in working condition.

These 'E. Class' locomotives were in fact two of seven Hunslet 4-6-0T units that had been new to the Tasmanian Main Line Railway (TMLR) in 1875-77, and were thus nearly 40 years old. They each had a rated tractive power of about 9700 lbs, and were relatively light. On the other hand No.7, bearing in mind it was in fact two engines, would have rated at 23,700 lb, and no doubt this and its flexibility for the proposed tight curves attracted Butler. However, he seemed to be oblivious to the high axle load. He ended his memorandum stressing the urgency of the matter, as he foresaw plate-laying at Ulverstone starting in a month's time. His report was endorsed positively by Fowler, and by the Minister for Public Works, James Belton.

However, two days later the Minister was more circumspect,²⁸ and more reports were sought from Ross Reynolds, Assistant Engineer-in-Chief, and from PF St.Hill, who had had some experience with the locomotive type on construction works,

specifically with *JOAN* at May Morn.²⁹ St.Hill's letter report mentioned that the steam joints in *JOAN* tended to leak under full working pressure, a comment that seemed to fall on deaf ears, at least for the moment.

Reynolds, on the other hand recommended purchase and, this being accepted,³⁰ the Secretary of the PWD was instructed to agree to the HTC's offer, on the proviso that the locomotive would, under actual steaming conditions, meet specified performance criteria. Delivery was to be to Ocean Pier in Hobart, and payment would be dependent on such satisfactory performance.³¹ The HTC keenly accepted the result; it had at last got rid of its white elephant.³² Or had it?

On 26 March 1915, the HTC wrote a succinct letter to the Secretary of Public Works:

*According to our present advice, the "Glenturk" – with the above locomotive on board – should be in Hobart on Monday morning next.*³³

The *Glenturk* was a 71-ton steam scow built at Port Esperance in 1905 for WP Henderson, manager of the Hopetoun mill, to carry logs from outlying points to the mill, and timber to ships out in the bay.³⁴ It went through a series of changes of ownership that mirrored the unstable life of the mill itself. It is more than likely that she was the vessel used to transport No.7 from Hobart to Port Esperance in 1913. This 1915 return trip was probably the last one she made for the company for she was sold off just 18 days later.

Back to the drawing board

And so No.7 arrived back in Hobart on board the *Glenturk* on 30 March 1915, just over two years after its first visit, and still in boxes. The following receipt was issued:

Received from the Huon Timber Company, ex "Glenturk":-

1 Loco Carriage in good order and condition

1 Loco Boiler do

2 pr. Driving wheels do

*2 pr. ***ing Wheels do*

2 Bogies

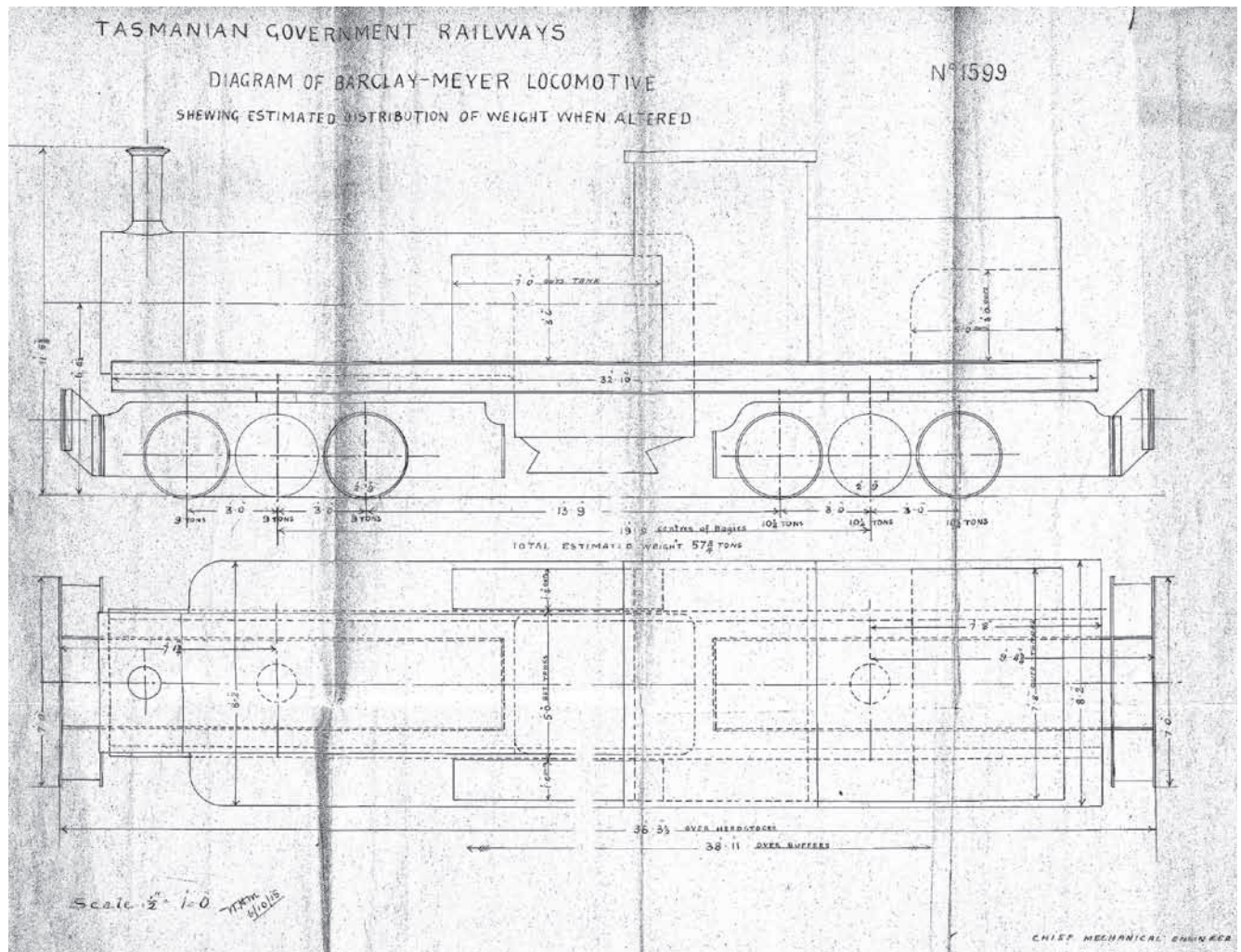
*10 cases Machinery (Loco Parts). Original cases unopened – Cases somewhat knocked about.*³⁶

The boxes were then railed to the TGR's Launceston workshops where the locomotive was at last unpacked and assembled. It appears that the penny was at last to drop. The locomotive apparently weighed in at over 50 tons, instead of the expected 40 tons, and compared with *JOAN*'s 27 tons.³⁷ The Chief Mechanical Engineer, telegraphed Ellerton Browne, the HTC manager in Hobart:

*Engine much over weight nineteen tons on rear axle can you meet me here eleven thirty tomorrow.*³⁸

Ellerton Browne telegraphed that he would arrive by express two days later.

Any meeting between the two is not documented, other than that the Engineer in Chief apparently wrote to the HTC



This schematic drawing, TGR Drg No 1599 was prepared by its Chief Draftsman in mid-1915 to show possible alterations to No.7 to address excessive axle loads. The drawing indicated, however, that even more load would result from the addition of the extra wheelsets and framing, rising to 10¼ tons on each of the three rear axles and these high loads on each bogie on such short wheel bases would severely compromise the structure of track and bridges. It was probably the straw that broke the back of any sale to the Public Works Department, and the alterations were never made.

Archives Office of Tasmania PWD213/1/12

on the matter on 3 May, and Ellerton Browne then cabled his Head Office in London for instructions. As a result, Ellerton Browne wrote a rather sanctimonious letter to the PWD on 17 May 1915:

... We have received a reply from our Head Office in London – with reference to the above locomotive – from which we conclude that the weight of the locomotive was increased in order to obtain the required drawbar pull. Our Head Office point out that the locomotive is a bargain at the price we agreed upon, owing to the great increase in cost of labour and material, apart from the difficulties of getting deliveries at all just now.

If, however, you will kindly submit Mr. Deebles (sic) proposals for alterations, together with estimate of cost of same, we feel confident that an arrangement can be arrived at to our mutual satisfaction.³⁹

The alterations proposed by Deeble included converting each of the locomotive's bogies from a four-wheel arrangement to six wheels. When the suggestion was put by the PWD to the TGR, their reply was that they would be able to do the work, but there would be a delay of some six or more weeks before details could be prepared.⁴⁰ The approximate weight per axle would be 9 tons 10 cwt, an implied total weight of 57 tons. Costs would need to be left open, but would be approximately £550.⁴¹ A schematic drawing was subsequently done (TGR Drg No 1599), and this indicated a total weight of 57¾ tons, with a maximum load of 10¼ tons on each rear axle. In its idleness, No.7 was putting on weight.

It was then desperately suggested by the HTC⁴² that a weight re-distribution might solve the problem, involving moving the tanks around, and this should be tried before any major alteration costs were incurred. However, that was soon discounted by the TGR as *moving this weight from one end to the other would, of course, be no relief at all.*⁴³

Extensive calculations were done on the potential effect on bridges of an altered locomotive, and these concluded that such a total load on such a small overall wheel base would result in higher bending moments on shorter spans than would be due to either the then-new 94 ton M-class Garratts, or the 72 ton Beyer-Peacock E-class of 1907. These calculations are contained in the file and they are conclusive stuff.

And that was all but the end of the matter. CC Baird, Chief Engineer for existing lines was at last someone who was able to take the bull by the horns, in a memorandum to his Commissioner.⁴⁴ After reiterating the problems with bridges, he went on to say:

Further, in view of the fact that the engine is intended for construction purposes when the object now appears to be a reduction in the weight and strength of rails,⁴⁵ it seems an anomaly to increase the concentrated weight of axle loads.

In view of the above remarks I therefore think it would be very undesirable, if not unsafe to run such an engine under these conditions.

Hiatus

And that is where things stood until April 1916 when the TGR wrote to the PWD pointing out that the locomotive they had purchased was rusting in the open at Launceston, and that it should be cleaned up, painted and covered.⁴⁶ The PWD replied that the purchase had not gone through, and they would alert the HTC of these facts, and ask what was to be done with it.⁴⁷

Another six months elapsed until the HTC was notified that, upon payment to the Government of the sum of £106 10s 2d, being half of the expenses incurred by it in regards to carriage and erection of the locomotive, the HTC could take possession of it, and would be required to remove it from Launceston.⁴⁸

In the last document in the file, a further nine months later, the HTC agreed to the condition, enclosing a cheque for the requisite amount, and advising that it had arranged with the TGR to have the locomotive dismantled and packed.⁴⁹

Another overseas trip

Just where it went for the next four years is not yet clear, but the end of the Great War followed less than four months later, and early shipping would have been difficult. However, it appeared with an associated Millar's company, Findlay Millar Timber Co in the Philippines not later than 1922. Richard Horne reports a note in the Barclay records that read: *'When in London in December 1922, Mr. Bell learned that this loco was working in Malay'*.

In 1924, the Findlay Millar Timber Co published the book *Philippine Lumber*, in which appeared a photograph of a trio of locomotives in a yard at Kolumbugan in that country; a trio that included the Meyer, only the second such photograph known to this author, and the only one of it in steam.⁵⁰

Of the other locomotives, one was a small and elderly Beyer Peacock 2-4-0T, 2158 of 1882, that had also arrived from Australia, from Millars Timber & Trading Co of WA, in December 1917,⁵¹ while the other was a much bigger Shay, 3242 of 1923, and thus quite new at the date of the photograph. It had a total working weight of 52.4 tons, and, assuming a reasonably balanced weight distribution, would have had working axle loads of just over 13 tons,⁵² very comparable with the Meyer, although possibly on a longer overall wheel base. In short, this would indicate that the track capacity in Kolumbugan was sufficient to carry these loads, contrary to the situation in Tasmania and a major reason why the Meyer had been such a failure there.

No further history of No.7 is to hand, other than it apparently worked on at Kolambugan until it was scrapped.

Vale

And so the sorry saga of Andrew Barclay B/n.1303 of 1913 came to an end.

This was a locomotive that had been conceived in May 1913, to an unproven basic design that was then modified, including having its weight increased to improve traction, and that exhibited several identified design faults on completion. At a time when the status of its ownership was in something of a hiatus, it had taken to the high seas for seven weeks on a passenger liner, and then on a much more humble vessel to eventually reach an obscure bay in the far-off antipodes. There it was found to be totally unsuitable for its purpose, and so there it remained, apparently still in its boxes, for the next two years.

When its owners saw an opportunity to offload it onto a government struggling with the difficulties of building and operating railways in wartime, it was taken on the second of its journeys, on the *Glenturk* back to Hobart, and then by rail to Launceston, where it at last emerged into daylight. There, it was to be erected, prodded, studied, and analysed, but again to fail its assessment and to be left rusting away in the open for another three years before being again packed into its boxes. At five years of age, the Andrew Barclay new Improved Meyer, had still not done any work.

The irony, of course, was that the Meyer's Tasmanian failure gave new life to both *STANLEY* and *BALDWIN*, the locomotives it was supposed to replace, as demonstrated by the advertisement that appeared in the *Mercury* of 23 March 1913 (p.2):

Wanted first-class Loco. Fitter.

Apply The Huon Timber Company Ltd., 23 Old Wharf.



The 0-4-4-0 Meyer-type locomotive No. 7 was probably not in service until after it arrived in the Philippines, sometime between 1918 and 1922. It is seen here as the centre locomotive at Findlay Millar's operations at Kolambungan, in a 1923 photograph that appeared in *Philippine Lumber*, published by that company the following year. The other two units are the diminutive Beyer Peacock 2-4-0T SAMSON (2158 of 1882) and a much larger Shay (3234 of 1923) that would have been quite new, and that fact may have been the reason for the photograph. The Meyer and this Shay had very similar axle loads of about 13 tons.

Photo: Findlay Millar Timber Company, courtesy the late Graham Holt

References

1. *Tasmanian Mail*, 19 January 1901, page 16
2. Except that this advantage could be negated if all cylinders faced inwards.
3. *Archaeology of the Tasmanian Timber Industry Report No 5: Historic timber getting between Hastings and Dover*, page 113, Parry Kostaglou 1994
4. *Light Railways No.57: Tasmanian Discoveries*, David Beck
5. ARHS Bulletin No. 560, June 1984: *Andrew Barclay Locomotives in Australia*. RT Horne.
6. Archives Office of Tasmania, Item PWD213/1/12 – *Barclay Meyer Locomotive – Purchase from the Huon Timber Company*. The catalogue reference to this file was found in an on-line search on the AOT website by Phil Rickard, who raised it with this author. Note that many of the following references and footnotes quoting letters, telegrams etc were generally sourced from this PWD file.
7. The underlining is by this author.
8. Letter of offer Andrew Barclay (AB) to HTC 8 May 1912
10. *Meyer Articulated Locomotives*, Donald Binns and Günter Koch, Trackside Publications, 1997.
11. The May Morn Estate was a not dissimilar venture to Hopetoun, although it also included clearing of the forests to the north-west of Wellington for farming. Like Hopetoun, it was notably unsuccessful, and JOAN spent little more than a year there.
12. The original offer was to deliver the locomotive to Glasgow for shipment. In the event it was railed from Kilmarnock to the London docks.
13. This reference to WA may indicate the involvement the Millars parent company, or at least its operations in that State, albeit belatedly.
14. Letter HTC to Mathews 18 December 1912
15. Letter Mathews to HTC 21 December 1912
16. The somewhat broken grammar used by Matthews leads to difficult interpretation of some of his statements.
17. Letter of certification to AB 22 December 1912
18. Telegram AB to HTC 27 December 1912
19. Letter HTC to Mathews 27 December 1912
20. Letter Mathews to HTC 28 December 1912
21. HTC to AB 30 December 1912
22. AB to Mathews 30 December 1912
23. Letter HTC to AB 30 December 1912
24. *The Launceston Examiner*, and the *Mercury* 27 February 1913
25. Letter HTC to PWD 21 September 1914
26. Letter/report TGR to PWD 8 January 1915
27. Departmental Memorandum 18 January 1915
28. Minister's Minute paper 20 January 1915
29. St.Hill to PWD (Reynolds) 23 January 1915
30. Reynolds to Fowler 03 February 1915
31. Secretary for Public Works to HTC 24 February 1915
32. HTC to PWD 02 March 1915
33. HTC to PWD 26 March 1915
34. The *Glenturk* was herself intertwined with the complex history of the TTC, the THC, and the HTC, from the time of her launching in 1905 until she was sold out of the HTC in April 1913.
36. Receipt 30 March 1915
37. An internal TGR memorandum of 30 April 1915 is difficult to interpret, but it seems to indicate that the basic weight of the locomotive without water or fuel on board was 51 tons, 13 cwt and 3 quarters.
38. Telegram to HTC 29 April 1915
39. HTC to PWD 17 May 1915
40. There was also the critical point that the workshops were struggling to keep an aging fleet of locomotives in service with the increased traffic of wartime.
41. Deeble to Fowler 24 May 1915
42. Letter HTC to PWD 14 Jul 1915
43. Deeble to Fowler 05 August 1915
44. Baird to Railway Commissioner 04 November 1915
45. Presumably on the proposed new hinterland lines, although the bridge problem would have been more universal on the TGR system.
46. TGR to PWD 14 April 1916
47. PWD to TGR 15 April 1916; PWD to HTC 15 April 1916
48. PWD to HTC 16 October 1917
49. HTC to PWD 26 July 1918
50. *Philippine Lumber*, Findlay Millar Timber Co, Manila, Philippines, 1924, source: the late Graham Holt
51. Data via email from R Horne, July 2011
52. www.shaylocomotives.com. This reference records that this locomotive had a build date of 26 September 1923, and was originally owned by Millars Timber & Trading Co. for the Kolumbungan Lumber & Development Co. as # 3. It had an empty weight, as built, of 88,000lbs (39.64 tons), and could carry 1750 US gallons of water (9.53 tons), and 3.25 tons of fuel (coal), a total of 52.42 tons.