

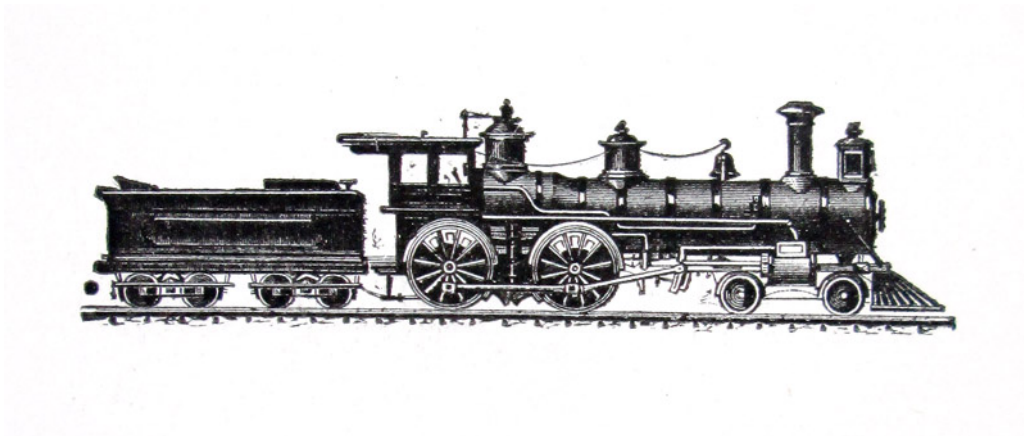
Part 10

Venezuelan steam locomotive lists

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v1.23 December 2025

**This file can be found, along with the five Chilean parts in the series
and files for a number of other South American countries, at
<http://www.railwaysofthefarsouth.co.uk/05x03chileansteamlocos.html>**



These lists, though benefitting from modern technology in both research and presentation, build upon those produced by many other investigators, from Wilfred Beckerlegge and Paul Dewhurst in the 1920s to John Kirchner and Allen Copeland eighty or ninety years later. As such, their content will, I hope, be helpful for researchers and authors in the future.

Feel free to use this material, though an acknowledgement would be appreciated.

General introduction

These lists grew from the publication of the book *Railways at the End of the World* (The Araucaria Press, Casterton, Cumbria, UK ISBN 978-0-9928622-0-6), back in 2014. During the research undertaken when gathering information for that volume, it had sometimes been frustrating when locomotives in southern Chile could not be easily identified. Once the book had been published there was more time available, and it gradually became obvious that a list of the engines of the Chilean state railways (*EFE*) would have to cover the whole country to be of any use, and thus it expanded all the way up to Arica. Then, during the Covid pandemic, the first moves were made to extend these lists to some of the other smaller South American countries.

The foundations were built upon earlier lists created by others such as Allen Copeland, John Kirchner, and Reimar Holzinger. Additional information has been added bit by bit to their work. Photographs too have been inserted, though these have been kept small, partly to reduce the file sizes and partly to minimise the risk that copyright owners will object. The main purpose of the images is in any case to enable locos spotted in other photographs elsewhere to be identified. When high-resolution versions are likely to be available from museums and archives, this has been flagged up, to encourage interested readers to purchase what they need from those who care for historic drawings or photographs.

As news of this work has spread, assistance has come from other researchers, including in particular Chris West, Claus Gaertner and Martin Murray. Grateful thanks is due to their selfless willingness to share information and images. Whilst many of the written sources consulted have been in Spanish, these lists are currently solely available in English. This partly results from my own lack of linguistic confidence, but is also a reflection of the fact that keeping a fast-changing document synchronised in two different tongues is very time-consuming. Nevertheless, quotes from historic documents have usually been left in Spanish and it is to be hoped that in the future a Spanish version of the whole work can be created.

Close examination of these pages is likely to remain strictly a minority interest, whilst even fewer are likely to print out all 5200+ pages! Thus the files have been designed to be read on screen, with hyper-links from the contents page to aid in finding each section. The density of information is likely to discourage browsing on a mobile phone, but hopefully the layout is suitable for display on tablets as well as larger computers.

It will be obvious that this is a work still in progress, with updates being uploaded to the web roughly on a quarterly basis at present. Comments, additional items of information or images, and suggestions to improve the layout, would all be very much appreciated, and the author can be contacted at martincoombs11@gmail.com

This Venezuelan list

There

Introducción general

Estas listas tienen su origen en la publicación del libro *Railways at the End of the World* (The Araucaria Press, 1 Fel-lview, Casterton, Cumbria, LA6 2SA, Reino Unido. ISBN 978-0-9928622-0-6), en 2014. Durante la investigación realizada para recopilar información para dicho volumen, a veces resultaba frustrante que las locomotoras del sur de Chile no se pudieran identificar fácilmente.

Tras la publicación del libro, se dispuso de más tiempo, y poco a poco se hizo evidente que una lista de las locomotoras de los Ferrocarriles Estatales de Chile (EFE) tendría que abarcar todo el país para ser útil, por lo que se amplió hasta Arica. Posteriormente, durante la pandemia de COVID-19, se dieron los primeros pasos para extender estas listas a algunos de los otros países sudamericanos más pequeños.

Las bases se construyeron sobre listas anteriores creadas por otros autores, como Allen Copeland, John Kirchner y Reimar Holzinger. Poco a poco, se ha ido añadiendo información adicional a su trabajo. También se han insertado fotografías, aunque de tamaño reducido, en parte para reducir el tamaño de los archivos y en parte para minimizar el riesgo de objeción de los titulares de los derechos de autor. El objetivo principal de las imágenes es, en cualquier caso, permitir la identificación de las locomotoras que aparecen en otras fotografías en otros lugares. Se ha informado sobre la disponibilidad de versiones en alta resolución en museos y archivos para animar a los lectores interesados a adquirir lo que necesiten de quienes se interesan por los dibujos o fotografías históricas.

A medida que se ha difundido la noticia de este trabajo, otros investigadores, como Chris West, Claus Gaertner y Martin Murray, han colaborado. Les agradezco enormemente su desinteresada disposición para compartir información e imágenes. Si bien muchas de las fuentes consultadas están en español, estas listas actualmente solo están disponibles en inglés. Esto se debe en parte a mi falta de confianza en el idioma, pero también a que mantener sincronizado un documento en constante evolución en dos idiomas diferentes requiere mucho tiempo. No obstante, las citas de documentos históricos se han mantenido generalmente en español y es de esperar que en el futuro se pueda crear una versión en español de toda la obra. Es probable que el análisis minucioso de estas páginas siga siendo un interés minoritario, y es probable que aún menos impriman las más de 5200 páginas. Por lo tanto, los archivos se han diseñado para su lectura en pantalla, con hipervínculos desde la página de contenido para facilitar la búsqueda de cada sección. La densidad de información probablemente desaconseje la navegación en un teléfono móvil, pero esperamos que el diseño sea adecuado para su visualización tanto en tabletas como en ordenadores de mayor tamaño.

Es evidente que este es un trabajo en curso, con actualizaciones que se suben a la web aproximadamente trimestralmente. Se agradecerán comentarios, información o imágenes adicionales, y sugerencias para mejorar el diseño. Se puede contactar con el autor en martincoombs11@gmail.com

Esta lista venezolana

T

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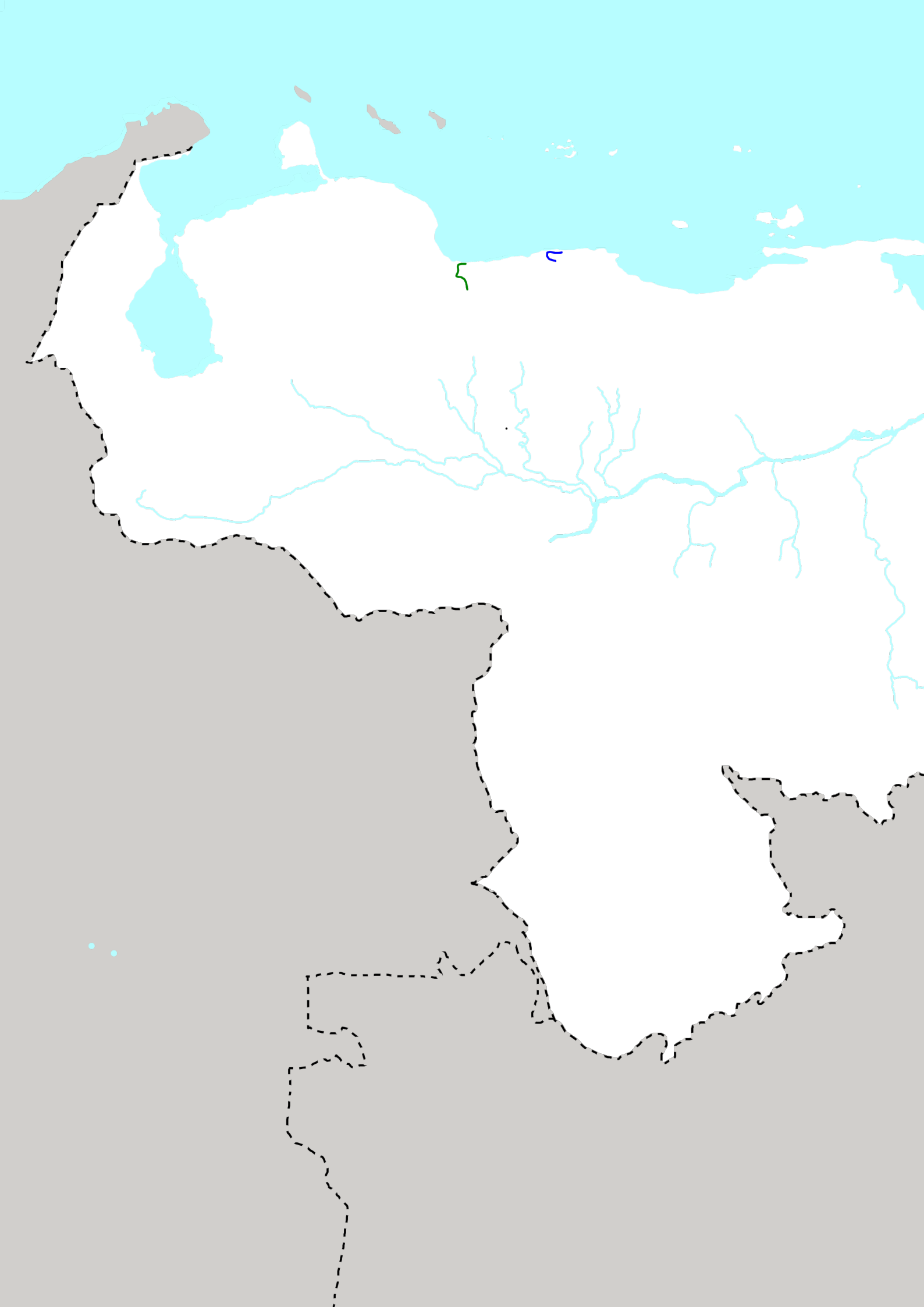
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Other parts of this work

This is one of a number of PDF files covering the steam locomotives of Chile and other South American countries across a wide variety of gauges. The other files can be accessed by clicking on the red hyperlinks listed below.

Part 1	Chilean broad gauge locos
Part 2	Chilean intermediate gauge locos
Part 3	Chilean metre gauge locos
Part 4	Chilean sub-metric gauge locos
Part 5	Chilean locos listed by builders
Part 6	Ecuadorian locomotives
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Notes and sources

The structure of this document is based upon the earlier ones for Chilean locos. The starting point was the locomotive list created by Reimar Holzinger, but it then became clear that unlike in some of the countries previously studied a thorough job of listing Venezuelan steam locos had already been done by Glen Beadon. Much of the information here comes from his list published on the *Gran Ferrocarril de Venezuela* Facebook group. That group also has a large number of fascinating photo albums and other files. Further sources are as listed. In general the locos ordered for the wider gauges have been covered first, then the narrower ones.

Sources

[1] *VenezuelaLocomotives.pdf* by Glen Beadon, available in the files area of the *Gran Ferrocarril de Venezuela* Facebook group.

[2] Públicas correspondiente al año 1931 publicado en Estados Unidos de Venezuela. *Memoria que presenta el Ministro de Obras Públicas a las Cámaras Legislativas en su reunión constitucional de 1932*. Tomo Primero. Caracas. Litografía y Tipografía del Comercio. 1932, página 302.

[3] GFT inventories detailed in a file *Inventario de Locomotoras del Gran Ferrocarril del Táchira.docx*, available in the files area of the *Gran Ferrocarril de Venezuela* Facebook group.

[4] *Memoria que presenta el Ministro de Obras Publicas a las Camaras Legislativas en 1899*.

[5] *Memoria que presenta el Ministro de Obras Publicas a las Camaras Legislativas en 1896*. Not much useful detail in this one.

[6] *Memoria que presenta el Ministro de Obras Publicas a las Camaras Legislativas en 1909*.

[7] *Memoria que presenta el Ministro de Obras Publicas a las Camaras Legislativas en 1914*.

[8] *Memoria que presenta el Ministro de Obras Publicas a las Camaras Legislativas en 1915*.

[9] *Memoria que presenta el Ministro de Obras Publicas a las Camaras Legislativas en 1917*.

[10] *Memoria que presenta el Ministro de Obras Publicas a las Camaras Legislativas en 1918*.

These MOP memorias can be found at <https://ufdc.ufl.edu/contains/brief/?t=%22Public+works+--+Venezuela%22,%22Venezuela+--+Ministerio+de+Obras+P&o=10> See also source [16] below.

[11] *Los primeros ferrocarriles de Venezuela: proyectos, tanteos, sueños e ilusiones*, José I. Urquijo, *Revista sobre Relaciones Industriales y Laborales* / N° 42 / 2006. [www.http://biblioteca2.ucab.edu.ve/iies/bases/iies/texto/RRIL-42_9-58_URQUIJO_JS_2006.PDF](http://biblioteca2.ucab.edu.ve/iies/bases/iies/texto/RRIL-42_9-58_URQUIJO_JS_2006.PDF)

[12] *Venezuela, an economic report presented by students of the School of Foreign Service as an aid to the foreign trade of the United States*, 1921, Georgetown University, Washington DC.

[13] *The Tramways of Caracas*, the late Allen Morrison, webpage at <http://tramz.com/ve/cs/cs.html>

[14] *The Great Venezuelan Railway*, A. Vale, in *The Railway Magazine* July 1901 p38-48.

[15] Webpage at <https://ciudadccs.info/2020/07/16/el-gran-ferrocarril-de-venezuela-i/>

[16] Further issues of the *Memoria que presenta el Ministro de Obras Publicas a las Camaras Legislativas* are available via the Hathi Trust, using this link: <https://catalog.hathitrust.org/Record/100412349> These include the following volumes: 1894 vol. 1 & vol. 2, 1904-5, 1905-7, 1907-9, 1910-11, 1911-12, 1912-13, 1913-14, 1914-15, 1916-17 vol. 1 & vol. 2. Others can be accessed via the Digital Library of the Caribbean at <https://www.dloc.com/> Note that the annual *Memorias* of the *Ministerio de Obras Públicas* began to be published in 1875.

[17] An 1889 agreement between Nicholas Schotborgh and the Carenero Railway & Navigation Co., in the National Archives, Kew, London.

[18] *El Gran Ferrocarril del Táchira Huellas y testimonios*, Jürg Demarmels, ISBN978-980-261-094-5 The locos chapter of this book is available as a PDF file on the *Gran Ferrocarril de Venezuela* Facebook page.

[19] *Bagnalls of Stafford*, Allan C. Baker and T. D. Allen Civil, 2009?, The Phyllis Rampton Narrow Gauge Railway Trust.

[20] *Los Ferrocarriles de Venezuela*, Germán Jiménez, 1914; estudio hecho por orden del Ministerio de Obras Públicas... <https://babel.hathitrust.org/cgi/pt?id=uiug.30112066366276&view=1up&seq=42&skin=2021> This lists a num-

ber of proposed extensions and even completely new schemes in its final few pages.

[21] *The Uintah Railway*, Linwood W. Moody, *The Railway and Locomotive Historical Society Bulletin*, No. 52 (May, 1940), pp. 48-54 (13 pages).

[22] *The Fairlie Locomotive part 1: The formative period*, P. C. Dewhurst, Read at the Science Museum in London on 4th April 1962, and published in the *Newcomen Society's* journal shortly after.

[23] *The Bolivar Railway and the Aroa Copper Mines*, Allan C Baker, 2022, The Industrial Railway Society.

[24] *Historia Contemporánea de Venezuela*, Fransisco González Guinán, Caracas, Tip. empresa El Cojo, 1909-25

[25] *Central of Venezuela Railway*, Dr. Paul Waters, 1988, in issue no. 4 of *The British Overseas Railways Journal*.

60% of this five page article is made up of the text from an article in *The Engineer*, 20th April 1866.

[26] *Documentos para el estudio del Ferrocarril Central de Venezuela* (1864-1866), Investigación y Compilación:

Elvis David López Navas Marian I. García H. URL (now dead Nov. 2022) was: [https://www.flipsnack.com/](https://www.flipsnack.com/arubaps/documentos-para-el-estudio-del-ferrocarril-central-de-venezu.html?fbclid=IwAR0mjTtpOYEVtOPdHVruWm_8_IX3tRBrHEN-P5uR8iTXIIaQTrhfoEryvdA)

[arubaps/documentos-para-el-estudio-del-ferrocarril-central-de-venezu.html?](https://www.flipsnack.com/arubaps/documentos-para-el-estudio-del-ferrocarril-central-de-venezu.html?fbclid=IwAR0mjTtpOYEVtOPdHVruWm_8_IX3tRBrHEN-P5uR8iTXIIaQTrhfoEryvdA)

[fbclid=IwAR0mjTtpOYEVtOPdHVruWm_8_IX3tRBrHEN-P5uR8iTXIIaQTrhfoEryvdA](https://www.flipsnack.com/arubaps/documentos-para-el-estudio-del-ferrocarril-central-de-venezu.html?fbclid=IwAR0mjTtpOYEVtOPdHVruWm_8_IX3tRBrHEN-P5uR8iTXIIaQTrhfoEryvdA)

Dimensions

Imperial unit driving wheel and cylinder dimensions, ie. in inches, have been added if it seems likely that they were originally created in that system.

Photographs

Photos have been added here solely to aid in the identification of locos seen in other images elsewhere. They have been found from many different sources, and may still be in copyright. For those reasons, and to keep the file sizes down, they are of low resolution, the majority being only 600 pixels across. The names of photographers will be added as time permits. As these documents are likely to have a very limited readership and are not being produced commercially, it is hoped that copyright holders will understand and permit their presence here. If not, please contact the author and they can be removed.

The list is arranged in date order for entry to service (which may have been some time after construction) of the first engine of each class, subsequent batches of the same class follow-on, keeping all engines of the same class together; thus the list of engine numbers is not consecutive, nor are the classes in alphabetical order. There are cross-references for replacement engines.

Baldwin loco classes and specification sheets

Baldwin loco details in the following lists usually include the class and a volume and page reference to the the appropriate spec. sheet. These can be found at <https://digitalcollections.smu.edu/digital/collection/rwy/id/32> amongst the collections at the DeGolyer Library of Southern Methodist University in Texas. An explanation of Baldwin's class system can be found at <https://guides.smu.edu/c.php?g=1029481&p=7460937>

Railway names and abbreviations

Railways in Venezuela

The Central Railway Company of Venezuela

El Gran Ferrocarril de Venezuela

El FC Central de Venezuela

El FC de Pto. Cabello a Valencia

El FC El Palito a Palmasola

El FC de Guanta a las minas de Carbón de Naricual

Gran FC de Tachira

El FC de Santa Barbara a El Vigia

El FC La Guaira a Caracas

El Gran FC de la Ceiba

El FC de Carenero

El FC de Maiquetia a Macuto

Caracas Antimano Railway

Cía. de vapor de Bella Vista

El Ferrocarril Bolivar

Tranvía a vapor de Güigüe

Railways in adjacent countries

Other abbreviations

d/w	driving wheels
cyls.	cylinder bore and stroke
w/n	works or builders' numbers

Venezuela

Background – the country

U

10.1 Standard gauge public railways

10.1.1 *El FC Central de Venezuela*

The Central Railway Company of Venezuela

1864-1868

(NB This was the original 1860s *FC Central* west from Puerto Cabello.

For the 1880s-built *FC Central* south-east of Caracas please see section 10.2.2)

Background

This was authorised in 1856 but only a short length of route west from Puerto Cabello was completed before work stopped. Source [11. p39] says: *“Ese mismo año, el 20 de diciembre de 1857, se celebró con gran solemnidad, en la ciudad de Puerto Cabello, la colocación de los primeros rieles del Ferrocarril Central. Días antes, se habían concluido satisfactoriamente los trabajos de exploración para los trazados de los ramales que partirían en dirección a San Felipe y a Valencia, razón por la cual reinaba gran alegría entre los vecinos, que acudieron masivamente a la fiesta inaugural.*

A fines del año 1858, la situación político-social de Venezuela había alcanzado un punto crítico, la palabra "federación" comenzaba a tener connotaciones casi míticas, evocando sentimientos de igualdad y autonomía. Los líderes liberales más importantes se hallaban en el exilio, decididos a regresar al país con el ánimo de desencadenar la Revolución definitiva, vinculándose a las masas rurales, desposeídas y oprimidas. La guerrilla federalista iba adquirir la dimensión de una guerra abierta y total, de una verdadera guerra civil.

En esta coyuntura histórica, ¿que cabría esperar de los ambiciosos planes de una red ferrocarrilera central? El olvido y el abandono. No obstante, el historiador Gil Fortoul señala que, en enero de 1858, se inauguró un trozo de este ferrocarril de menos de un kilómetro de longitud.”

“That same year, on December 20, 1857, the laying of the first rails of the Central Railway was celebrated with great solemnity in the city of Puerto Cabello. Days before, the exploration work for the paths of the branches that would leave in the direction of San Felipe and Valencia had been satisfactorily concluded, which is why there was great joy among the neighbors, who attended the inaugural party en masse.

At the end of the year 1858, the political-social situation in Venezuela had reached a critical point, the word "federation" began to have almost mythical connotations, evoking feelings of equality and autonomy. The most important liberal leaders were in exile, determined to return to the country with the aim of unleashing the final Revolution, linking up with the rural, dispossessed and oppressed masses. The federalist guerrilla was going to acquire the dimension of an open and total war, of a true civil war.

At this historical juncture, what could be expected from the ambitious plans for a central rail network? oblivion and abandonment. However, the historian Gil Fortoul points out that, in January 1858, a section of this railway less than a kilometer long was inaugurated.”

It certainly is possible that at least one locomotive will have been present by that time.

Unlike all other Venezuelan railways in the steam era, and most unusually, the gauge was initially specified by the presiding engineer Juan Docherty to be 4' 10" (ie. probably standard gauge but measured between the rail centre-lines), though whether that plan survived through subsequent debate and negotiation is as yet unknown.

In 1864 the Central Railway Company of Venezuela was floated in London to continue the work. Robert Francis Fairlie became the company's engineer. The route was intended to stretch from Puerto Cabello about 54 miles to San Felipe, but only reached El Palito (12km.) before the *Revolucion Azul* disturbed the country sufficiently to prevent all further progress. The opening of the El Palito section took place on 13th February 1866 [24, vol. 8, p450]. The completed section of railway seems later to have been absorbed into the route of the Pto. Cabello and Valencia railway and was thus regauged to 3' 6".

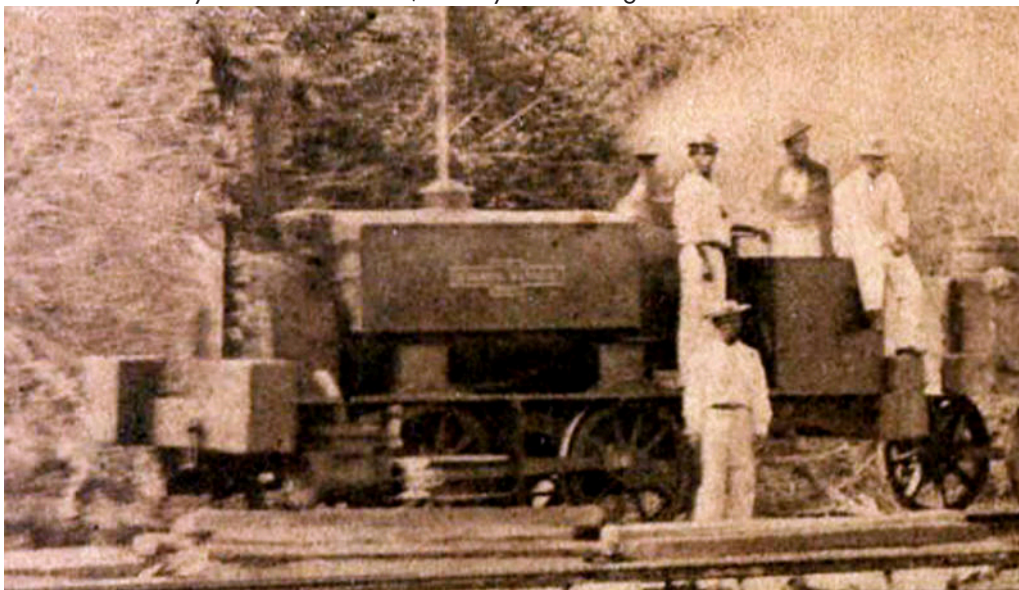
Locomotives

No locos have as yet been positively identified for this railway. However, the photo below may very well show one of the railway's earliest engines. The builder John Jones of Liverpool has also been mentioned in connection with this railway, though there are no clues in the Jones & Potts list in the SLS library (file WL10324). The chronology of press references to locomotives make it likely, though not certain, that at least three engines were constructed and shipped to Venezuela. Another possibility is that the builder was James Cross of St. Helens, as the notes below about possible double Fairlie locos for this railway make it clear that Cross was involved. See the end of this section for further speculation on this topic.

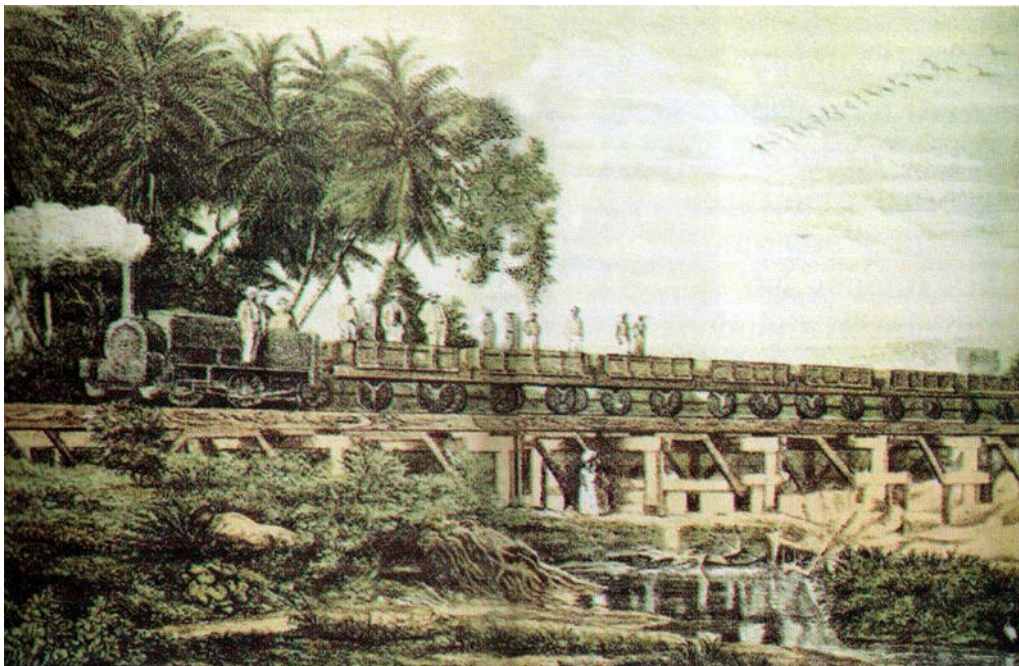
1) Early January 1865



The only known photo of the Central Railway, possibly taken during the opening ceremony for the first stretch, or maybe showing off the construction works.



The photo was supposedly taken no later than early January 1865. Points of interest on the engine include the ten spoke wheels, the cylinders with short valve chests above (rather than between the frames), the Falcon-style steam pipe elbows, the square tank but with a slightly curved top, and Dübs-style long and short rectangles plate.



This painting supposedly shows a track-laying train running from Puerto Cabello in 1865, but that has not been confirmed. The loco is very probably that shown in the photo above.

0-4-0ST d/w ?, cyls. ?, built by ? in 1864-5

Ordered for ?

?

w/n ?

2) March 1865

The newspaper *El Federalista* of March 13th 1865 contained the following brief article:

Ferrocarril central.

El 13 del corriente dió fondo en la bahia de Puerto-Cabello la barca inglesa «Luisa Kook, » conduciendo los rieles, clavos, pernos, etc., y la locomotora para el ferrocarril central. Es indudable que en breve tomarán mayor impulso los basta hoi no interrumpidos trabajos de aquella linea, y que los porteños tendrán pronto el placer de oir en el hermoso camino de Paso-Real, el agudo silbido de la locomotora.

Hé aquí el cargamento de la «Luisa : »

Una locomotora, 6 vagones, 10 id. de trabajo, 2.293 rieles equivalentes á 4 1/2 millas de camino, 4 toneladas hierro en barras, 6 idem pernos y clavos, 11 id. cambiamientos y cruceras, 8 id. consistentes en una fragua, acero, herramientas y otros materiales para la misma, 8 bultos palas y 86 toneladas diversas herramientas, carretillas, etc., etc.

That means that another locomotive arrived at Puerto Cabello on board the *Louisa Cook* on that day, March 13th.

? d/w ?, cyls. ?, built by ? in 1864-5

Ordered for ?

?

w/n ?

3) August 1865

Another article in *El Federalista* on August 21st 1865 reads:

Ferro-carril central

Las noticias traidas por el paquete de esta empresa, segun nos dicen de la Guaira son bien animadoras : parece que la compañía cargaba a la vez cinco buques en Inglaterra con elementos suficientes para llevar el ferrocarril mas alla de Palito : tres buques en Newport (Gales) tomaban rieles y toda la obra de movimiento, (rolling stock) carruajes para pasajeros, wagones de carga, la locomotora 'General Falcón', y los mas se llenaban de durmientes de hierro, etc., en

Glasgow : todo esto se calcula importar a la empresa de 30 a £40.000. Sabemos ademas que los Señores Lange, agentes de la compañía, han recibido una remesa en dinero para los trabajos.

In other words a third loco had been loaded – at Newport or Glasgow, not clear – as part of five shiploads of materials.

? d/w ?, cyls. ?, built by ? in 1865

Ordered for ?

‘GENERAL FALCÓN’ w/n ? Gral. Juan Crisóstomo Falcón was the 14th President of the Union of Venezuela.

Double Fairlies?

P. C. Dewhurst wrote, in part 1 of his Fairlies paper for the Newcomen Society [22]:

“The trail commences in January, 1866, where, at the end of a description of *Progress*¹ it is stated that “Cross & Co. are constructing several smaller locomotives upon the same plan (i.e. as *Progress*) for the Venezuelan Central Railway, of which the Patentee of the engine (*Progress*) is the Chief Engineer,” but, although the supply of such locomotives seems logical—it was whilst journeying to that railway in his official capacity a few years later that Fairlie contracted his serious illnesses—no trace of such supposed engines has emerged; the Venezuelan Central Railway was a narrow-gauge line. In this connection it is pertinent to record that an obituary notice of Fairlie,² after recounting the performance of *Progress*, continues “several others were built for the Venezuelan Central Railway, but as that line was not finished, they were set to work on other railways.” They have never been found on any “other railways”; it is not always safe to rely on details given in obituary notices.

CROSS'S SECOND ENGINE – MOUNTAINEER'

There is ample evidence for the known successor to *Progress*, viz. *Mountaineer*, and it is always described as built for the Anglesey Central Railway for service on construction work, although it seems possible that it may have originated from an embryo design connected with the projected supply to Venezuela. It was a small engine, in accordance with its intended use, and is shown in Fig. 2 and Plate XIV, (b). From these its constructional features are evident, and its principal and most unfortunate items – the single central inner firebox as well as the coiled steam pipe in the smokebox—are clearly exhibited. The engine was delivered in April 1866 and in August a special trial of it was made, at which were present George England and other engineers connected with locomotives. There is little doubt that the contact here made between England and Fairlie led eventually to Fairlie's connection with Hatcham. This trial is noteworthy for a subsequent press report (steam being found insufficient)³ which commented: "It will doubtless be found desirable in further engines upon this plan to make a separate firebox to each barrel" —how right the reporter was! *Mountaineer* is recorded as on construction work on the Anglesey Central line and it subsequently worked on the Neath & Brecon Railway, though for how long in service on the latter seems uncertain.”

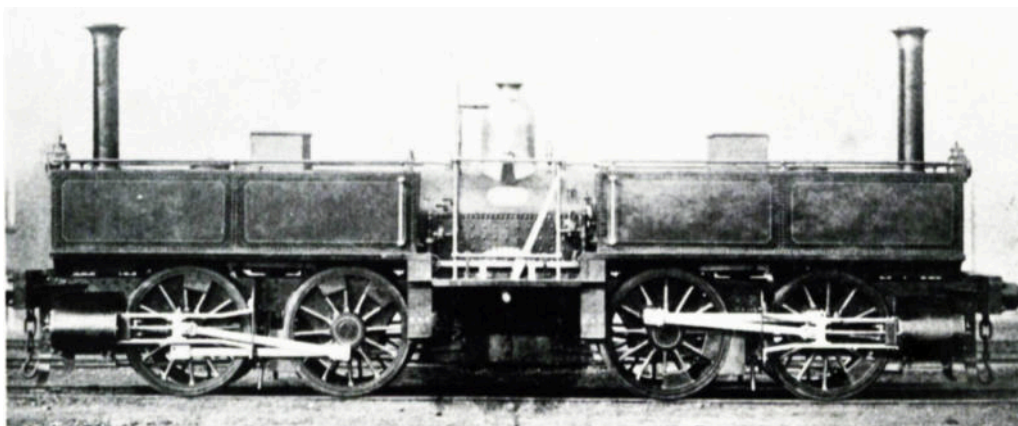
The references were to:

1 *Engineering*, 12 January 1866, p. 20, and *The Engineer*, 20 April 1866, p. 287.

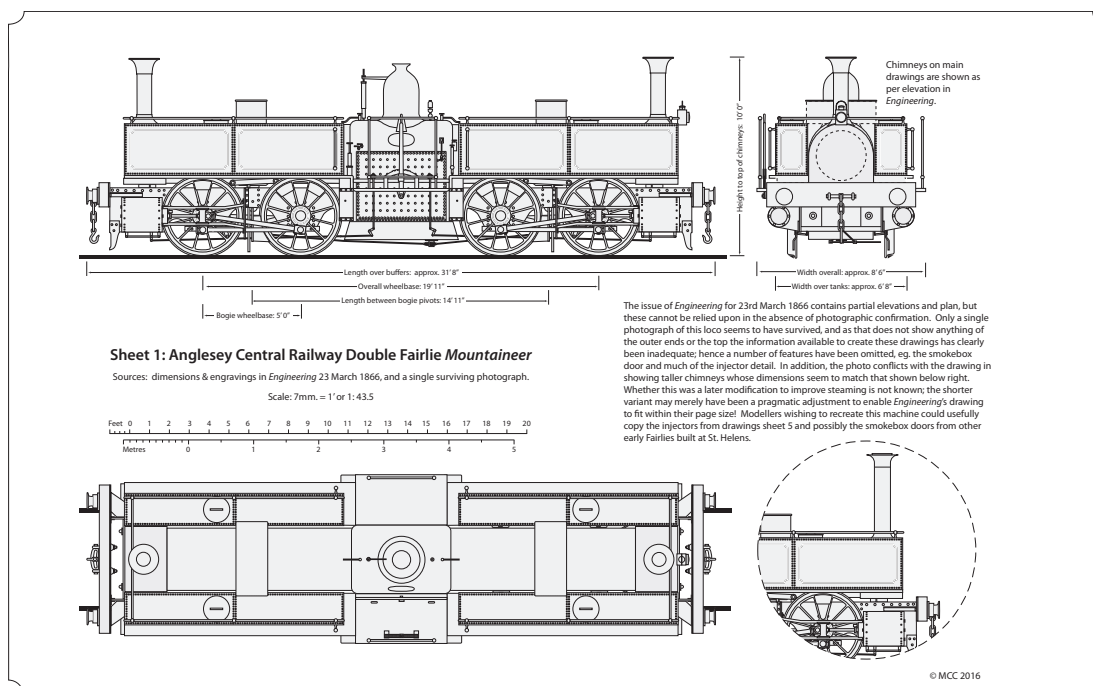
2 *Engineering*, 7 August 1885, p. 133 (obituary).

3 *Engineering*, 10 August 1866, p. 93.

This requires interpretation, for like many others, Dewhurst has confused the two Venezuelan railways with ‘Central’ in their titles. This first Central railway was not narrow gauge, and in confusing the two Dewhurst lost sight of the fact that this railway ceased operations before the route had been fully constructed.



This is the only surviving photo of 'MOUNTAINEER' which as explained above may have originated in the design for the *FC Central*.



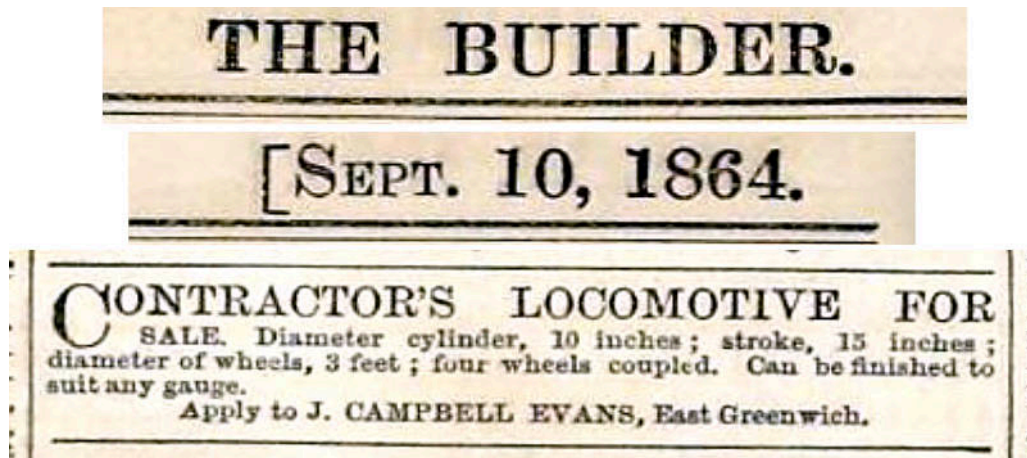
Although displayed at a very small size on this page, this vector drawing is a PDF which can be enlarged to A4 or even A3 size without loss of quality. It shows 'MOUNTAINEER' as it was displayed in the journal *Engineering* in 1866. The drawing was created by the present author in 2016 for publication in the late David Payling's book *Fairlie Locomotives of North Wales*.

A rumour to be discarded

Three double Fairlie locomotives built possibly to 3' 0" gauge by Avonside in 1873, including one named 'ESCALADOR DE MONTES', are rumoured to have come to this railway. This story has been repeated many times but no evidence to support it has ever been found. The repetition was facilitated by some observers having no knowledge of this railway at all, and thus assuming that the later *FC Central* south of Caracas was being referred to. Paul Waters, writing in 1988 [25], developed this idea a bit further by suggesting that two hitherto unknown Fairlies that ended up on the Sorocabana in Brazil might have been built by James Cross and might therefore have been originally intended for here, but he too was assuming that the Central Railway of Venezuela was to have been a narrow gauge railway. More recently, in 2023, evidence has been found suggesting that two of these 'lost' Fairlies went to a railway much further south in Latin America, so the probability that they came to Venezuela is now minimal.

Further thoughts on locomotives

Further investigation by Chris West revealed that the shareholders of the Central Railway of Venezuela included not only a William Lawrence Banks who was also a shareholder in the Anglesea Central Railway (and the Brecon & Merthyr, the Neath & Brecon and the Vendee railways – all users of Fairlies), but also a J. Campbell Evans who was owner of the Morden Iron Works in Greenwich and an aspiring loco builder. The following advert from September 1864 might encourage us to speculate even further.



The abandonment of plans

In the end this railway failed as a result of politics and civil disturbance. Puerto Cabello was besieged in 186? during the ???

The property rights and privileges and the assets were to have been transferred to the Puerto Cabello and Central Venezuela Railway Co. in 1868, but that company failed to raise the necessary funds. This company may not have achieved anything, but it seems likely that any assets would have eventually passed to the Puerto Cabello & Valencia Railway Co. which did succeed in linking those two places during the 1880s. See section 10.2.3 for further information.

10.2 3' 6" gauge public railways

10.2.1 *El Gran FC de Venezuela (GFV)*

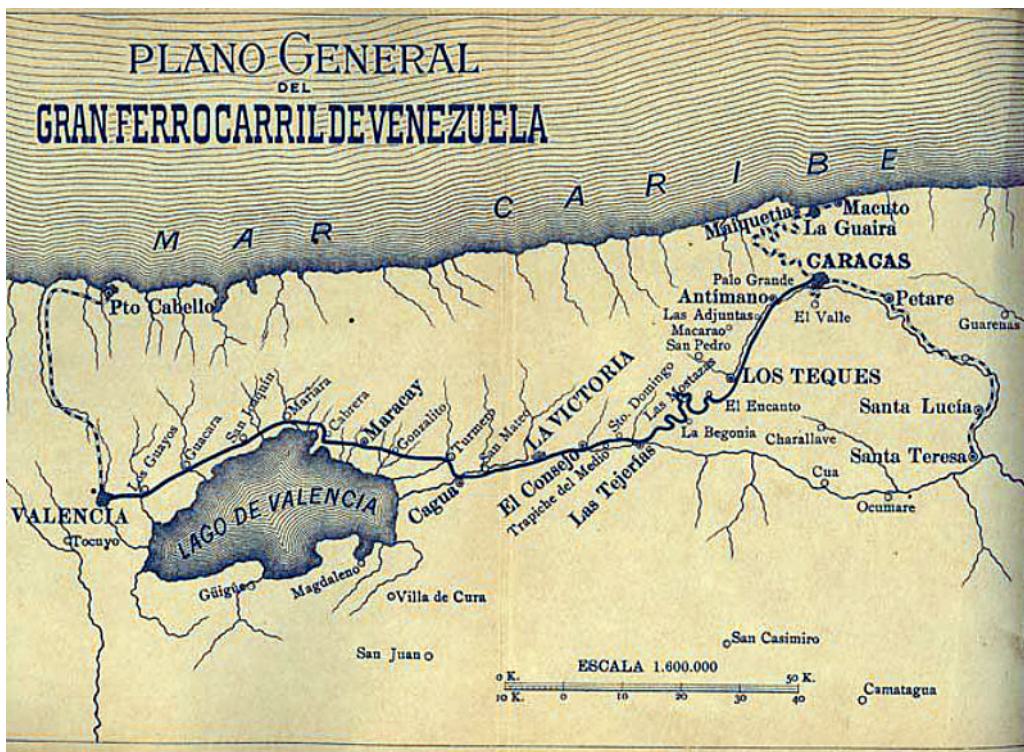
1894-1967



Background

3' 6" gauge. Caracas to Valencia 178.9 km. Built and operated by the *Grosser Venezuela Eisenbahn Gesellschaft*. Inaugurated 1891-3. Closed 1966?

In 1914 proposed extensions from Valencia to San Carlos, and a branch from Cagua to Villa de Cura and Calabozo were listed, also a railway from Valencia to Nirgua.



2-6-2T d/w 40", cyls. 14x20", built by Nasmyth Wilson in 1885

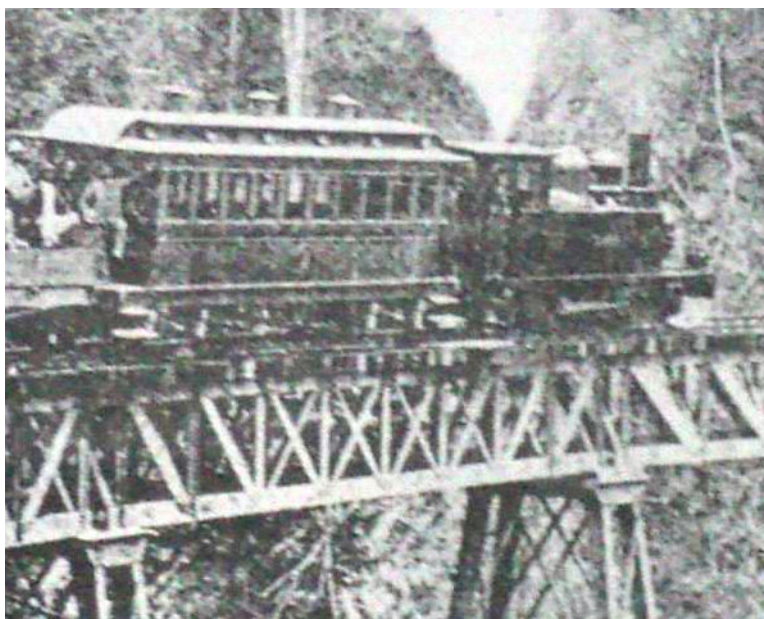
Ordered for the Caracas Antimano railway to 3' 0" gauge, regauged for the GFV. [1] says purchased from *FC Central*

when it went bankrupt, but it was the *GFV* which inherited the assets of the Caracas Antimano Railway, not the *FCV*.

1 'CARACAS' w/n 296 1901 "recently rebuilt by *GFV* at Caracas" [14].

2 'ANTIMANO' w/n 297

One of these engines, from this pair or from the Dübs locos listed immediately below, seems to have been purchased by the government in 1913-14 and transferred to the *FC Nacional Guanta a Naricual* where it received the name 'NARICUAL'. Its sister may well have joined it there later.



This view of a train on the Agua Amarilla viaduct at Km. 48 was published in *El Cojo Ilustrado* in 1893. It was found in the *GFV - Estaciones, Puentes, Túneles* album at <https://www.facebook.com/media/set/?set=oa.10150560988871853&type=1>
The loco is one of the two regauged Nasmyth Wilson 2-6-2Ts from the *FC Caracas á Antimano* (see photo in section 10.4.7).



Another photo of a Nasmyth Wilson ex *FCCA* 2-6-2T on a *GFV* viaduct, with a similar sand-dome to that shown above but seemingly retaining its original capped chimney rather than having a stove-pipe.

Later Tipo C

2-6-2T d/w 39", cyls. 15x20", built by Dübs in 1886

Ordered for *FC Central*. Purchased when *FC Central* went bankrupt [14].

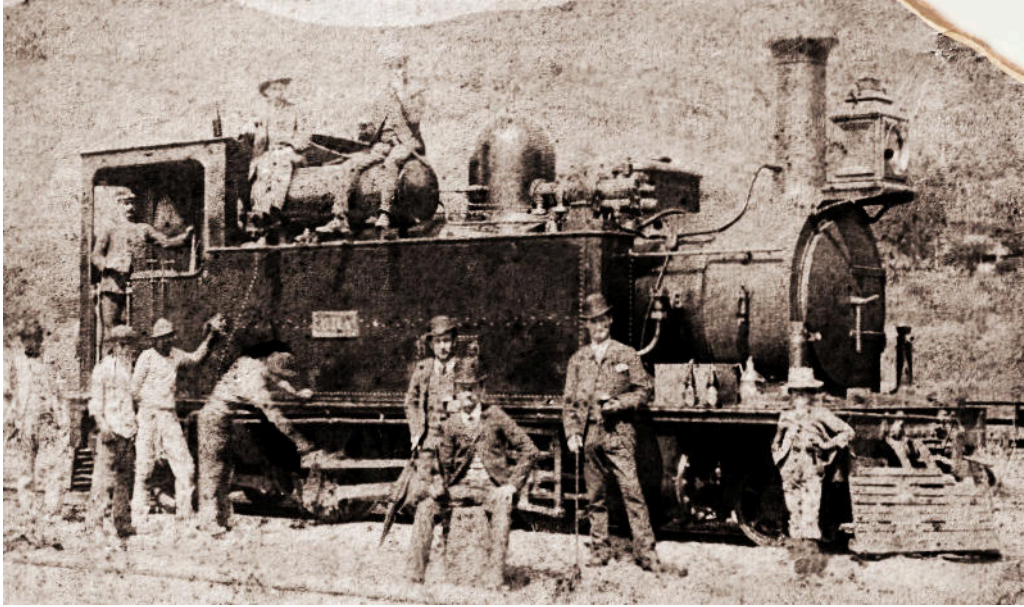
3 'SILLA' w/n 2179 Ex *FCV* no. 3. 1901 "recently rebuilt by *GFV* at Caracas" [14]. Not listed in 1917, but may have been the loco transferred to the *FC Guanta Naricual* around 1914.

4 'ÁVILA' w/n 2180 Ex *FCV* no. 4.

Mentioned June 1894 as working a train from La Victoria to Maracay [16 1894, pd221 p241].

1901 "recently rebuilt by *GfV* at Caracas[14].

Still in *GfV* service in 1917.



This image, kindly provided by Sverre Jensen from his grandparents' collection in Denmark, seems to show one of this pair of ex-FCCV 2-6-2Ts after their takeover by the *GFCV*. It is clear that the latter's standard equipment of pump and air reservoir on top of the right-hand tank have been added. The original caption apparently gave a date of Christmas morning 1892, which is very possible, given that the FCCV bankruptcy probably took place around the very end of the 1880s. The name-

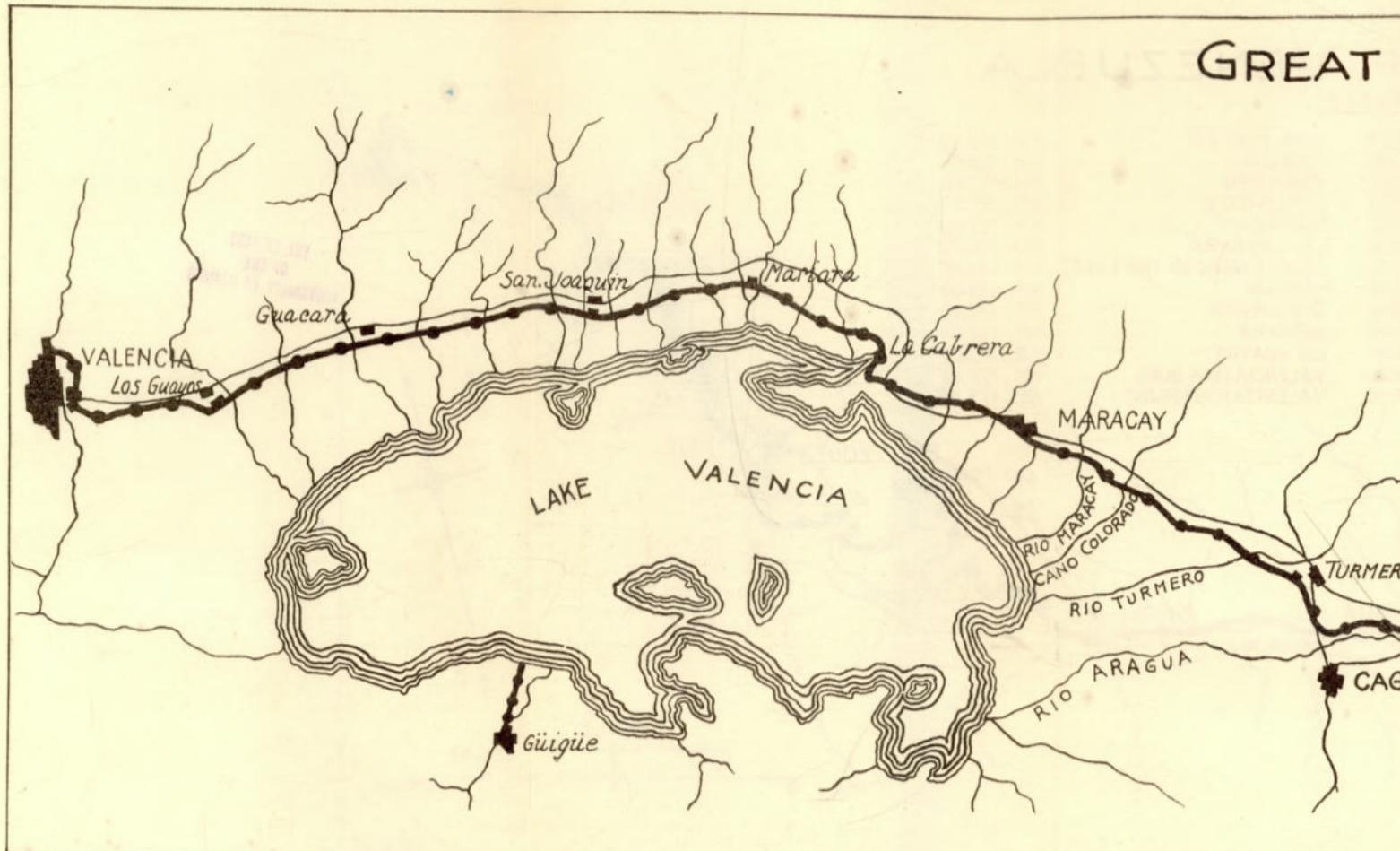


plate on the side tank could read either 'SILLA' or 'AVILA', but as only the last letter is clear no firm guess can be made. However, it is also noteworthy that no number-plate is visible. If this pair of engines were un-numbered on the GFCV it would solve a puzzle.

Later Tipo D

0-6-0T d/w 36", cyls. 10½x15", built by R. & W. Hawthorn in 1888

Ordered for Venezuela Central Railway, but purchased by GfV when FCV went bankrupt [14]. Described in an article as being like a small copy of the LBSCR 'Terriers' and as being used on suburban trains of two or three cars. Not built by Black Hawthorn as [1] suggests. A loco with this name but not referred to as a mainline engine was listed in the fleet in 1918 [10]. See photo in *FC Central* section of this file.

5 'CONSTRUCTORA' w/n 2111 Or possibly no. 3 [1].

Later Tipo A

2-6-2T d/w 1000mm, cyls. 410x520mm, built by Hartmann in 1889 and 1892

Ordered for *Gran FC de Venezuela*. The three locos unnamed below would appear to have carried the names 'APURE', 'TACARIGUA' and 'COJEDES'. All these names are of Venezuelan rivers. 'COJEDES' was involved in a collision with another train near La Cabrera in September 1894 [16, 1894 pd234 p254].

3? 'TUY' w/n 1602

4? 'ORINOCO' w/n 1603

5? 'CABRIALES' w/n 1604

6? 'ARAGUA' w/n 1605

7 'GUARICO' w/n 1606

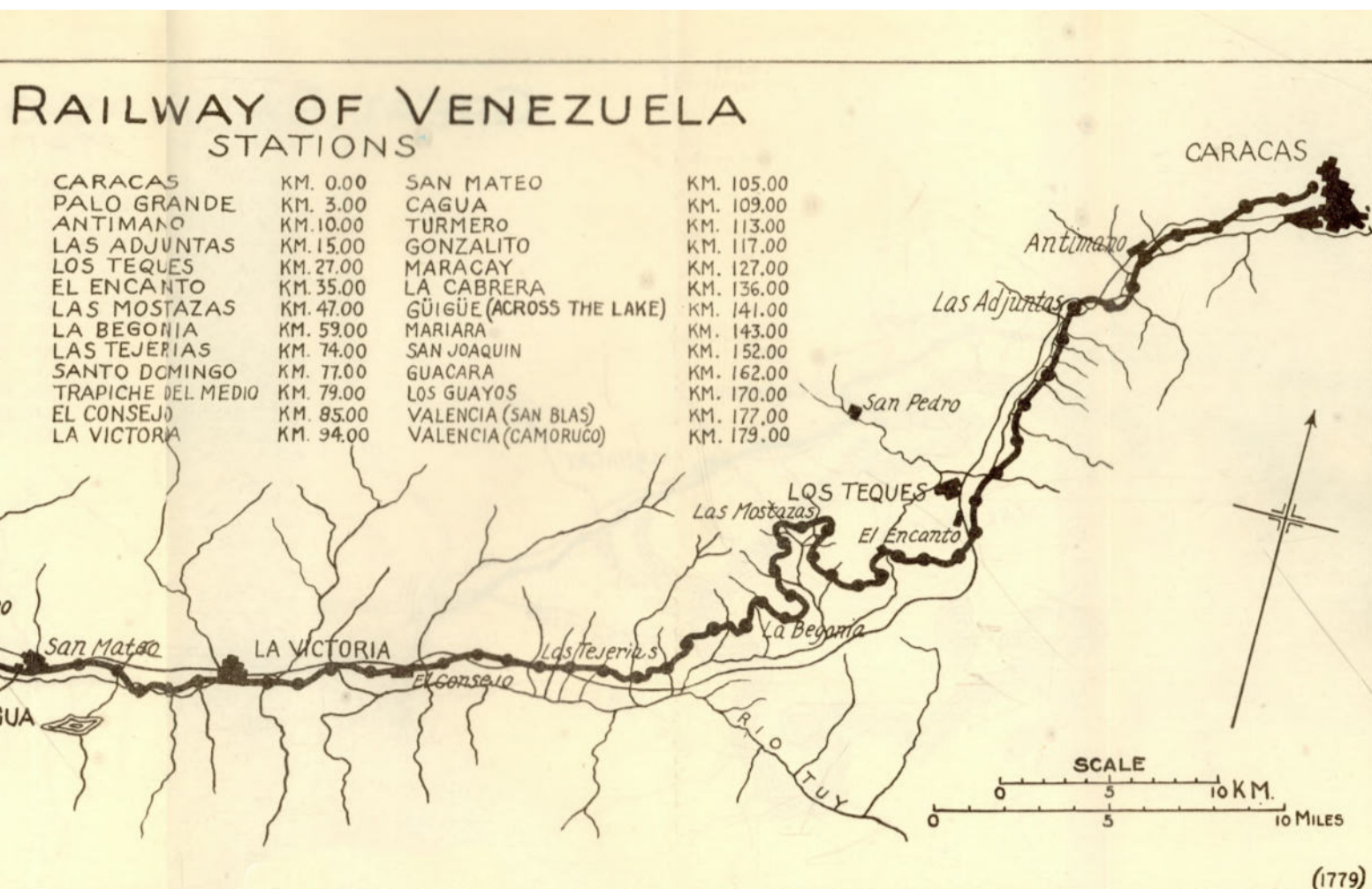
Probably sold to *FC Central* in 1937.

8? 'PAO' w/n 1607

Supposedly sold to *FC Central* in 1937.

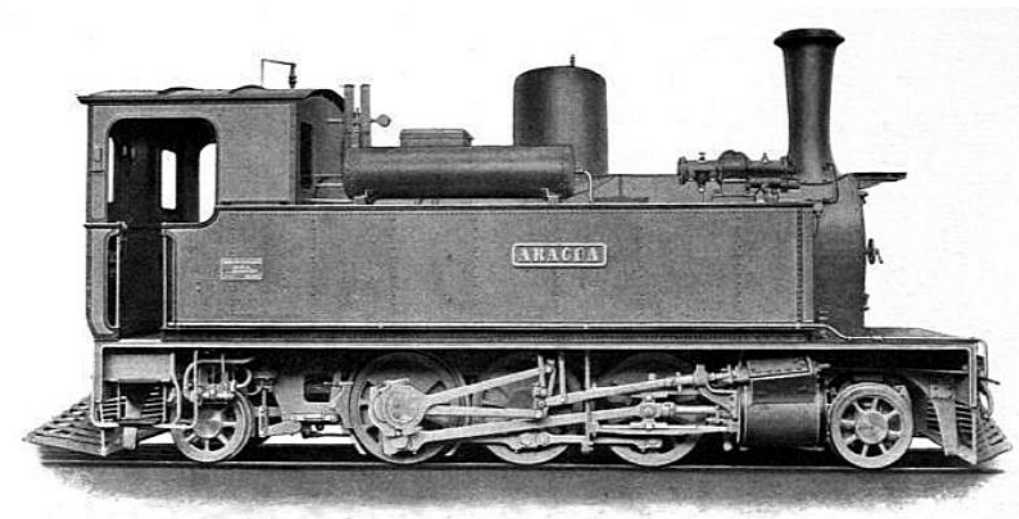
? '?' w/n 1883

? '?' w/n 1884

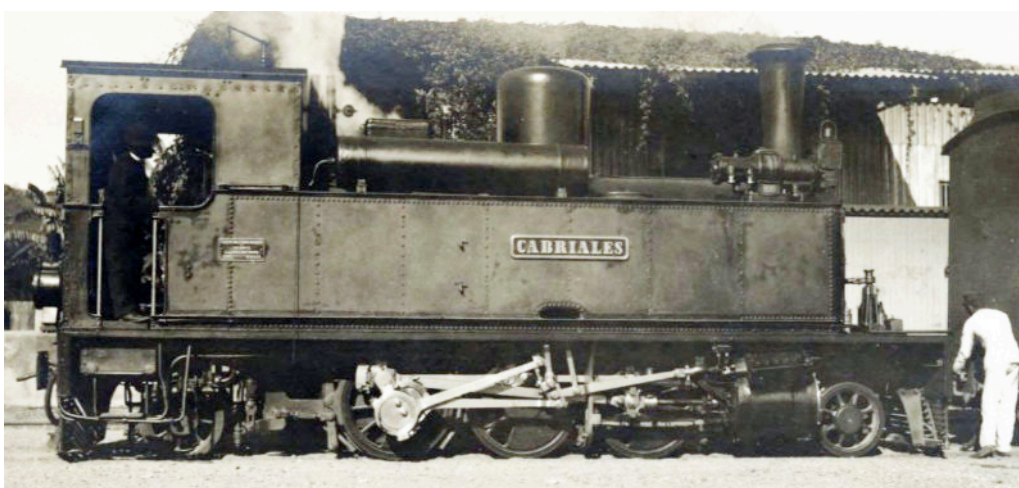


? ‘?’
? ‘GUAIRE’

w/n 1885
w/n 1886



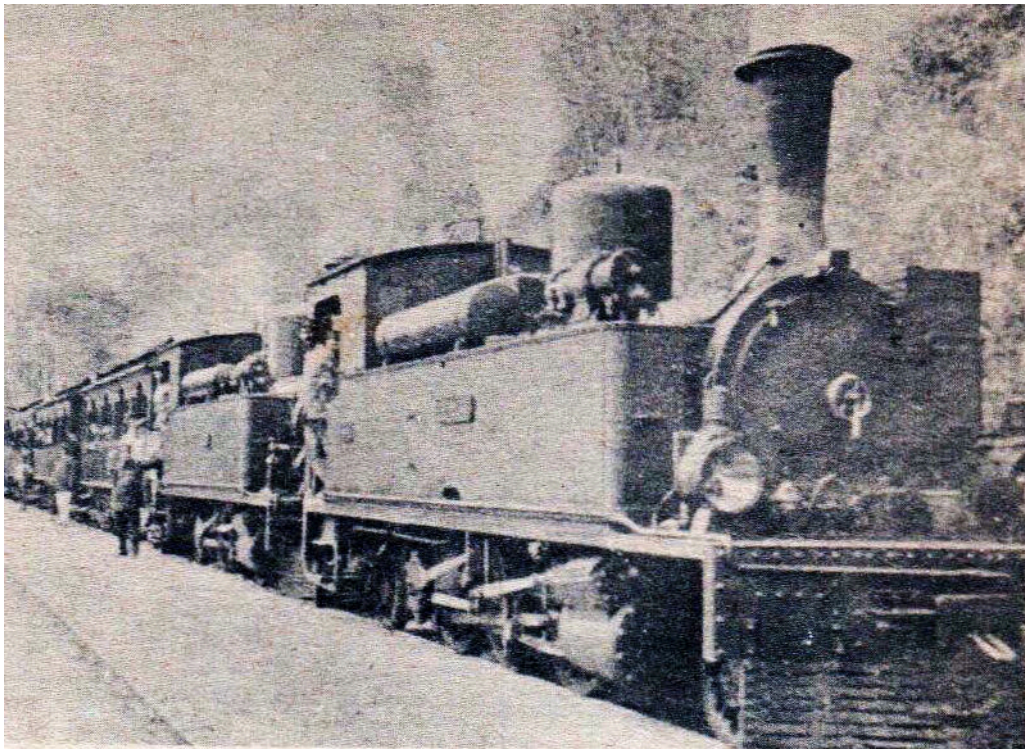
A photo from the 1910 Hartmann catalogue by courtesy of Piotr Staszewski.



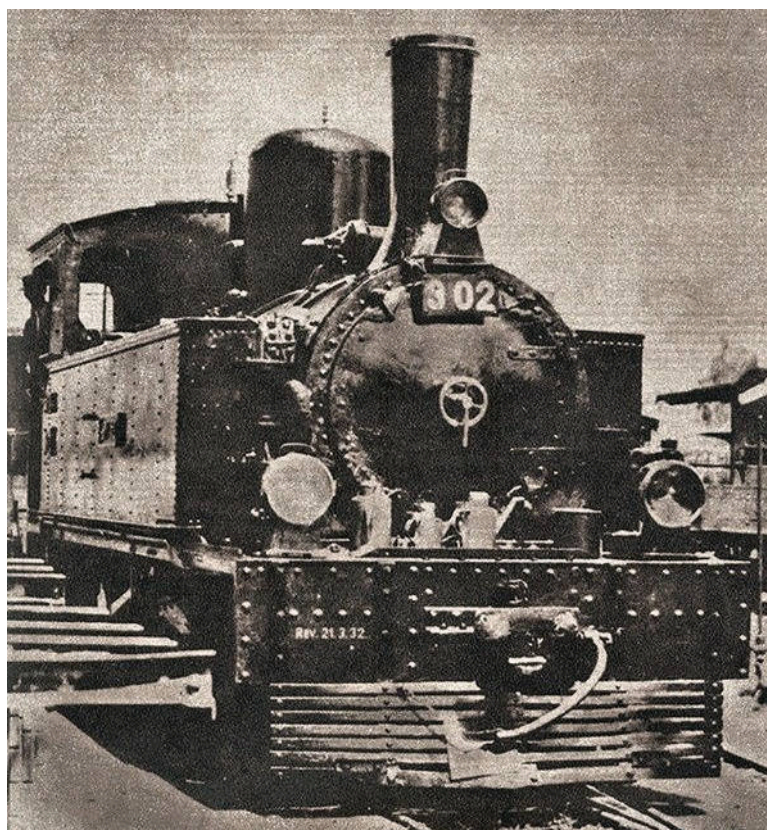
It is noticeable that this second loco is carrying longer side tanks than that above it – only about 250mm longer but clearly now finishing forward of the cylinder front. Given that ‘**CABRIALES**’ was one of the first batch built, along with ‘**ARAGUA**’ illustrated above, I think we can assume that the larger tanks had either been borrowed from a second batch engine or were a later modification. The tank on ‘**CABRIALES**’ also has a cut-out mid-way along to create space for the valve gear link. This can be seen on two of the four tanks visible in the photos below.



‘**GUAIRE**’



A pair of Hartmann 2-6-2Ts at El Encanto station.



This photo later in the railway's life flags up a number of changes from the previous image. An air pump has been added in front of the right hand tank (left as seen here), though the photo contrast makes it hard to see. An air hose also hangs below the coupling. Higher up, a turbo-generator has been mounted on the boiler behind the chimney, whilst the original feed pump has been removed from the tank top. More puzzling is the number **3 02**, which does not fit into any known number scheme. On the buffer beam is the painted inscription 'REV. 21.3.32' which at a guess means that the engine had been returned from overhaul on the 21st March 1932. A stove-pipe chimney has replaced the original capped style. It is also noticeable that the tank has a sharp vertical edge to its front outer corner, whereas

in the previous photo that corner is clearly curved.

Later Tipo B

4-4-4T d/w 1280mm, cyls. ?, built by Hartmann in 1894

Ordered for *Gr. FC de Venezuela*. Look at [1] again for names. Numbers were probably **19-21**. Names are all of birds. These locos were used on fast trains between Valencia and Las Tejerías.

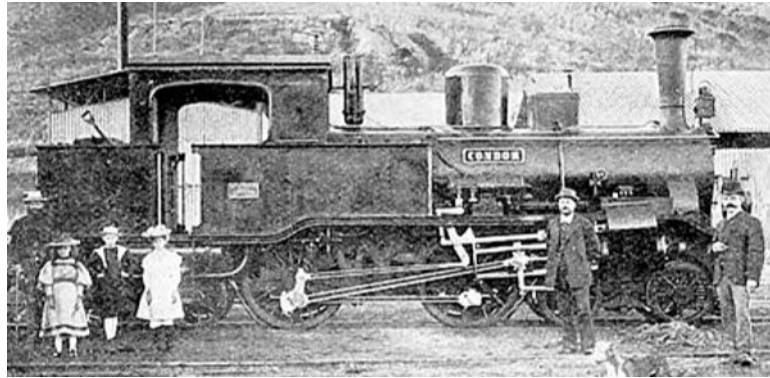
B? 'GAVILÁN' w/n 2027

B20 'HALCÓN'? w/n 2028

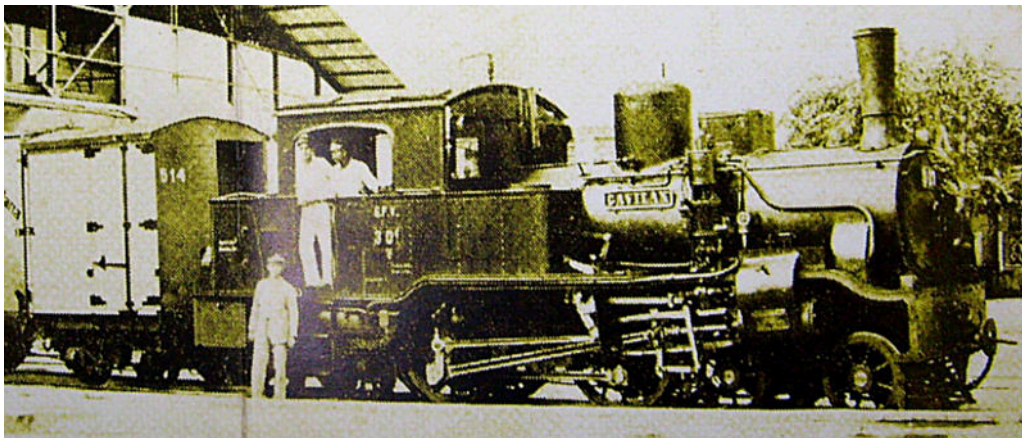
B? 'CÓNDOR' w/n 2029

Names for these last two may have been the other way round.

Renamed **'HALCÓN'**?

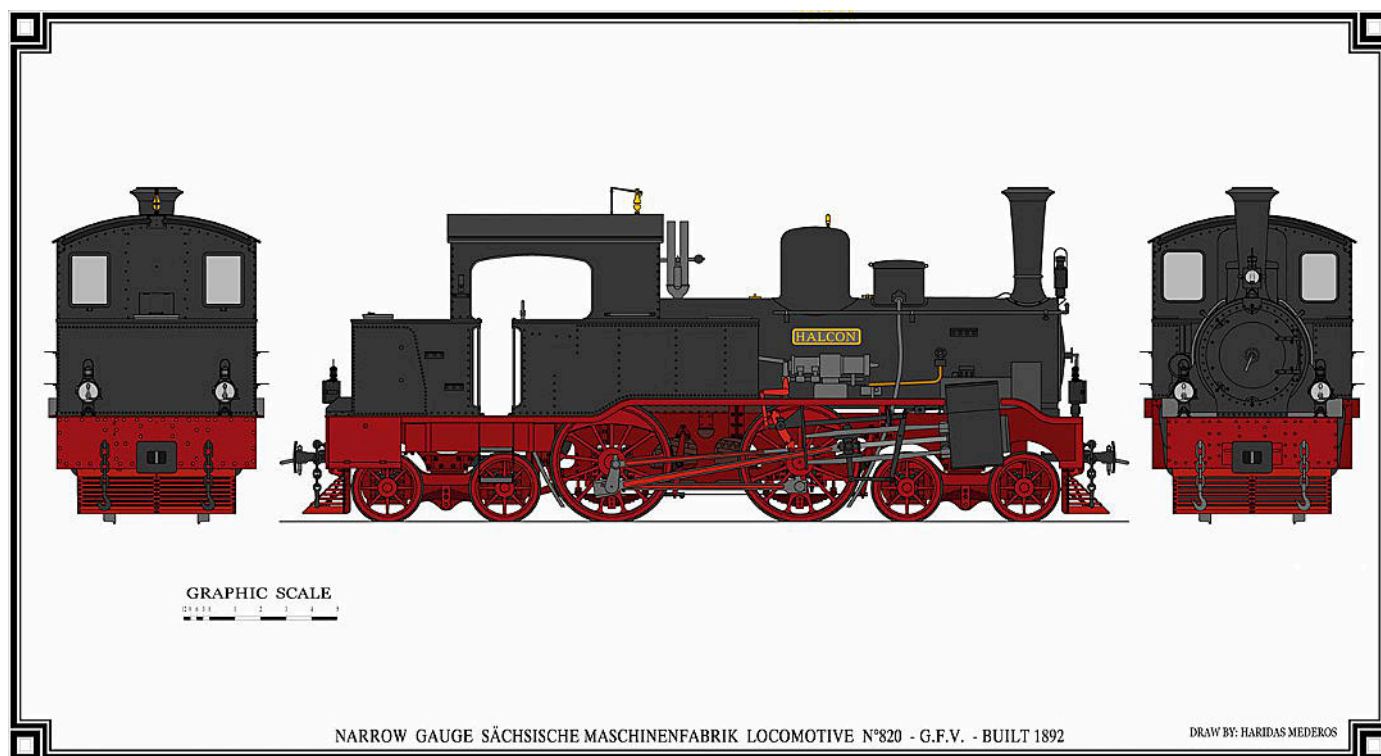


Comparing these photos, it looks as though an airpump was added to the right hand side of the boiler during the loco's life.



4-4-4T **'GAVILÁN'** at the abattoir in Maracay.





This recent drawing of the 4-4-4Ts is by Haridas Mederos, a Venezuelan engineer now working in Ecuador. He has very kindly given permission for it to be displayed here.

The fleet in 1894 and 1901

The railway's 1894 annual report apparently mentions a fleet of eighteen locos, all of which have been listed above. A report from December 1894 [16 1894 pd247 p267] also gives the total as eighteen. The MOP memoria for 1895 [16, 1895, p267] also says 18. Source [14] a substantial article in *The Railway Magazine* in 1901, affirms the presence of eighteen locos, but says that only eight were then needed, the remainder being kept in reserve.

The sale of one loco

The government purchased one loco from the GFV in 1913-14 for transfer to the Guanta á Naricual railway. This seems to have been one of the 2-6-2Ts, and probably was one of the Nasmyth Wilson or Dübs machines that originated on the *FC Caracas á Antimano* or the *FC Central*:

Por disposición del General Juan Vicente Gómez, Presidente de los D. 433 Estados Unidos de Venezuela, se aprueba la erogación de diez y seis mil bolívares (B 16.000), para la compra a la Compañía del Gran Ferrocarril de Venezuela. de una locomotora, que el Gobierno Nacional destina al servicio de la Empresa Nacional «Ferrocarril y Minas de Carbón de Guanta», y que recibirá en Puerto Cabello el ciudadano Heriberto Aldrey, emplea-do de la mencionada Empresa. Comuníquese y publíquese. Por el Ejecutivo Federal, D. A. CORONIL. [16 1913 pd388 p194].

Minor modifications 1913-14

The 1913 memoria reported: *Se instalaron arenadores con presión de vapor en 6 locomotoras, de éstas, dos del trayecto montañoso fueron provistas con quemadores de chispas y humo. Se instalaron también en 3 locomotoras, en la parte baja delantera, tubos eyectores de vapor, para destruir las langostas que invaden de continuo la vía, ocasionando frecuentes retardos de los trenes. [16 1913 pd437 p059].*

And in 1914: *“En una locomotora fue montado un consumidor de chispas y humo, y esta innovación ha dado buen' resultado, por lo cual se proveerá poco a poco con el mismo aparato todas las locomotoras del trayecto montañoso. Otros dos aparatos que se han ensayado en años anteriores no dieron resol. todo, por cuyo motivo se quitaron de las máquinas en que habían sido instalados. Tres locomotoras del trayecto montañoso han recibido ya arenadores que*

funcionan con presión de vapor y dan buen resultado, de manera que todas las locomotoras del trayecto serán provistas con iguales aparatos.” [7]

“En una locomotora fué montado un consumidor de chispas y humo, y esta innovación ha dado buen resultado, por lo cual se proveerá poco a poco con el mismo aparato todas las locomotoras del trayecto montañoso. Otros dos aparatos que se han ensayado en años anteriores no dieron resultado, por cuyo motivo se quitaron de las máquinas en que hablan sido instalados. Tres locomotoras del trayecto montañoso han recibido ya arenadores que funcionan con presión de vapor y dan buen resultado, de manera que todas las locomotoras del trayecto serán provistas con iguales aparatos.”

1918 memoria

“Para evitar la salida de chispas de la chimenea de las locomotoras se han agregado a los dos aparatos extinguidores de chispas que ye tienen toda las locomotoras, otro aparato en la punta de la chimenea, consistente de un tubo con muchos agujeros finos, por los cuales sale una tupida lluvia de agua y vapor, que no deja escapar ninguna chispa que pueda ser causa de incendio.” [10].

Pages 181-311 of that *memoria* reproduce the railway's rulebook seemingly in full. Pages 197-200 set out in detail the loads permissible for each type of loco on each section of line. The following table comes from that document.

ADJUNTO NUMERO 1 TABLA DEL MÁXIMUM DE PESO QUE PUEDEN ARRASTRAR LAS DIVERSAS MÁQUINAS EN LOS DISTINTOS TRAYECTOS, SEGÚN EL CARÁCTER DE LOS TRENES. CLASIFICACIÓN DE LOS DIFERENTES TIPOS DE MÁQUINAS	
<i>Tipo A.—Máquinas alemanas de montaña</i>	(1 eje motor y 2 acoplados) :
“Apure”, “Cabriales”, “Guárico”, “Orinoco”, “Tacarigua”, “Aragua”, “Cojedes”, “Guaire”, “Pao”, “Tuy”.	
<i>Tipo B.—Máquinas alemanas del trayecto plano</i>	(1 eje motor y 1 acoplado) :
“Cóndor”, “Gavilán”, “Halcón”.	
<i>Tipo C.—Máquina inglesa</i>	(1 eje motor y 2 acoplados) :
“Avila”.	
<i>Tipo D.—Máquina inglesa</i>	(Ruedas triples acopladas) :
“Constructora”.	

197

This tells us a lot more than merely the names of the engines then in the fleet. It suggests that there were still two British locos in service, despite one of the Dübs or Nasmyth Wilson 2-6-2Ts having in 1913-14 been sold to the Guanta to Naricual railway.

Tipo ?

2-8-4T d/w ?, cyls. ?, built by Hartmann in 1921

Ordered for *Gr. Venezuela Eisenbahn*. Probably numbered **22** and **23**.

? ‘CARACAS’ w/n 4463

? ‘MARACAY’ w/n 4464



1921 memoria

Source [21] gives the total number of locos as eighteen. That may well include the two big 2-8-4Ts newly arrived, but is still one higher than the 1918 total of fifteen would suggest.

“Material rodante y flotante

Con trabajo asiduo se han compuesto las locomotoras que hablan sufrido mucho durante la guerra. Hoy sirven en todos los trenes. Las 2 locomotoras potentes con peso de servicio de 03 toneladas llegarán a principios del año de 1922, poniéndonos en condiciones de atender a un tráfico bastante mayor al que hoy estamos limitados por la crisis mundial, que aun se siente hasta aqui también. ...

Los estudios sobre vagones motrices no han llegada aun en Alemania a tipos perfectos para pendientes y curvas tan forzadas como las que tenemos en la Sección montañosa. Varias fábricas están seriamente ocupadas en su perfeccionamiento y mientras no se construyan vagones que con seguridad puedan servir en las condiciones difíciles del trayecto montañoso, no podemos traerlos, pues su costo es muy elevado y po permite exponerse a un fracaso. ”

1925 data in US report

This report states that there were fifteen German locos and two of British manufacture. That matches all those locos listed in the 1918 *memoria* plus the two big 2-8-4Ts.

Loco classification and numbering

The 1918 rulebook loco list reproduced above shows that locos were given class letters A to D. Later photos show the first of the Schwartzkopff 2-8-2Ts as no. **E24** and the second of the Hartmann 4-4-4Ts as no. **B20**. Then in the 1930s one of the 2-6-2Ts was seen bearing the number **3 02**. Armed with this scanty information, we can make a guess at how the numbering schemes developed:

A Locomotives identified largely by name, but also bearing single or double digit numbers in a sequence commencing at 1.

B By 1918 engines had been classified in *tipos* by letter, and these letters now preceded each number.

1 The Hartmann engines ordered at the time of the railway's construction:

<i>Tipo A</i>	10 Hartmann 2-6-2Ts	A?-A?
<i>Tipo B</i>	3 Hartmann 4-4-4Ts	B19-B21

2 Additional engines picked up during the early years:

<i>Tipo C</i>	2 Nasmyth Wilson and 2 Dübs 2-6-2Ts	C?-C?
<i>Tipo D</i>	1 Hawthorn 0-6-0T	D5?

3 More recent acquisitions:

<i>Tipo ?</i>	2 Hartmann 2-8-4Ts	?22-?23
<i>Tipo E</i>	6 Schwartzkopff 2-8-2Ts	E24-E29

C By the early 1930s, the *tipo* letters had been replaced by numbers.

However, these ARE only guesses, and any more definite information will be gladly received.

Tipo E

2-8-2T d/w ?, cyls. ?, built by BMAG/Schwartzkopff in 1928, 1929 and 1931

These locos cannot be checked in the BMAG/Schwartzkopff list which is very incomplete. Source [1] suggests that the names were to be 'BOLIVAR', 'MIRANDA', 'SUCRE', 'PAEZ' and 'URDANETA'. Possibly numbered 24 to 29.

24 'BOLIVAR'	w/n 9366	
? 'MIRANDA'	w/n 9367	
? 'SUCRE'	w/n ?	
? 'PAEZ'	w/n 9595	Possibly 9594.
? 'URDANETA'	w/n 9644	Merte's Schwartzkopff list shows this loco for Yugoslavia. Possibly 9595 instead.
? 'MARIÑO'	w/n 9976	

On the two locomotives which arrived in 1931 the *Informe Anual al Ministerio de Obras Publicas* commented:

"Se adquirieron de la firma "Schwartzkopff" de Berlín, y se montaron en nuestro Taller Palogrande, 2 nuevas locomotoras de petróleo crudo, que llevan los nombres de "Urdaneta" y "Mariño", y son exactamente iguales a la del tipo muy moderno "Bolívar", que montamos en 1929, y cuyas características ya detallamos en el Informe del año correspondiente. Con estas 2 nuevas locomotoras, tenemos actualmente en uso, 6 del mencionado tipo que nos están prestando muy útiles y eficaces servicios con economía de combustible." [2]

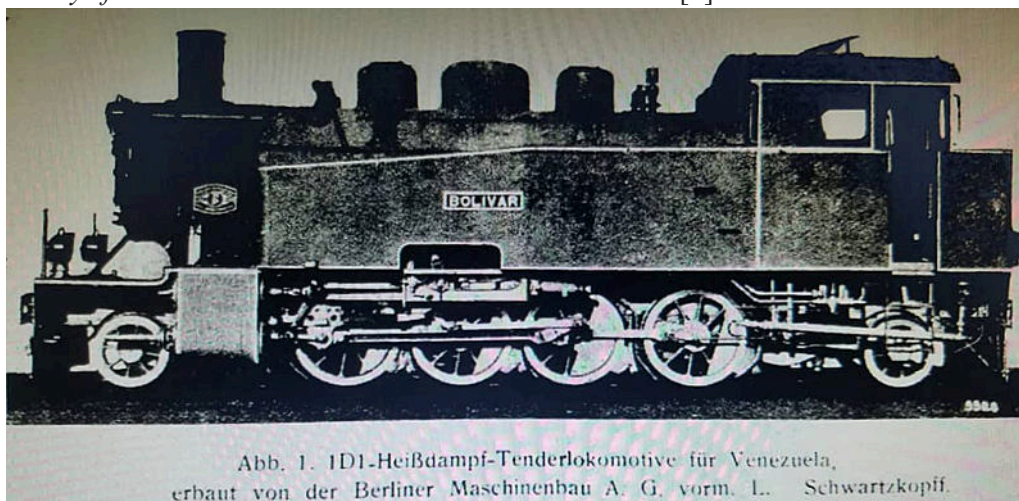
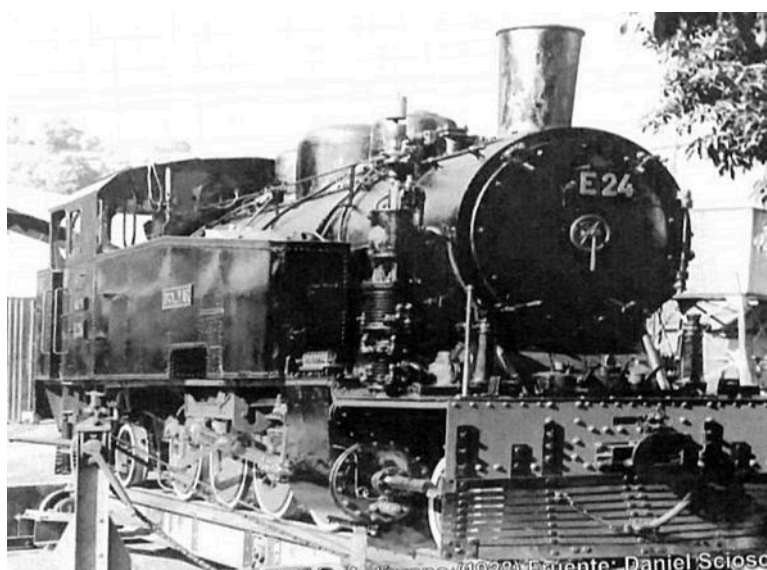
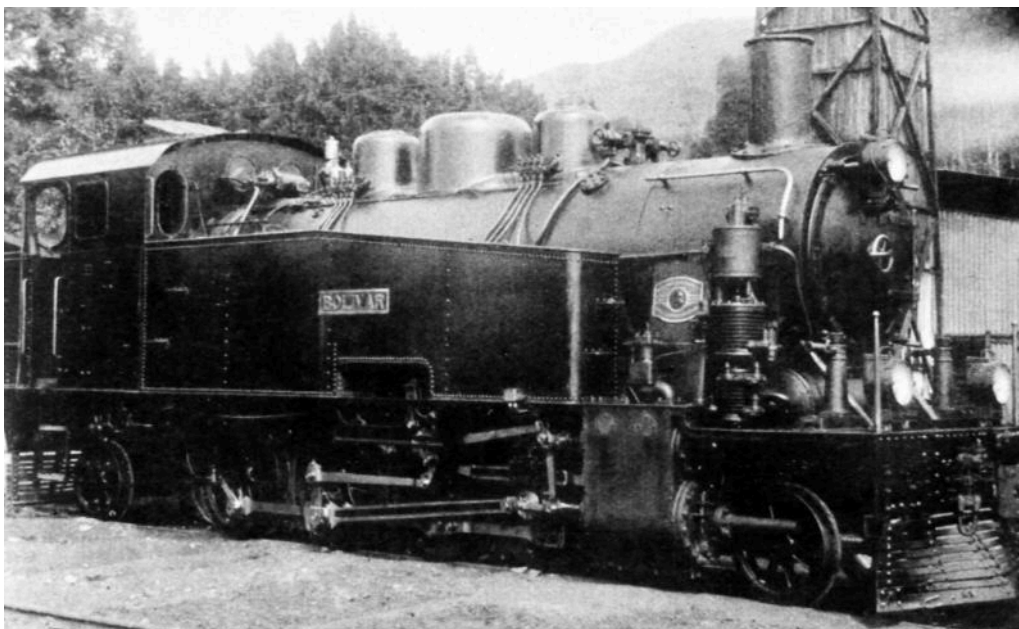


Abb. 1. 1D1-Heißdampf-Tenderlokomotive für Venezuela, erbaut von der Berliner Maschinenbau A. G. vorm. L. Schwartzkopff.



Loco '**BOLIVAR**' again, showing a number plate **E24**. Note that a rather wider chimney is carried than in the previous photos.

Steam railmotor? 2-2-0+4w? d/w?, cyls. ?, built by Esslingen in 1929

Ordered for *Gran Ferrocarril de Venezuela*.

? w/n 4226

1936 total

The 1936 *Supplement to the World Survey of Foreign Railways* gives the number of locos on this railway as nineteen. This suggests that several older engines will have been withdrawn. In fact the total of ten Hartmann 2-6-2Ts (minus the two shortly to be sent to the *FCV*), three Hartmann 4-4-4Ts, two Hartmann 2-8-4Ts and six Schwartzkopff 2-8-2Ts adds up to nineteen exactly. In other words, by that date the railway was probably only running engines of those four 'standard' classes.

10.2.2 *El FC Central de Venezuela (FCV)*

1886-1961

(NB This was the 1880s-built *FC Central* from Caracas to the south-east.

For the original 1860s-built Central Railway from Puerto Cabello please see section 10.1.1)



Background

3' 6" gauge. Built by the Venezuela Central Railway Company, formed in London in 1885. Originally was to have extended from Caracas, via Valle de Tuy, Valle de Aragua to Valencia. The section of the concession from Cúa to Valencia was later ceded to the *Gran FC de Venezuela*. As eventually opened the railway ran from Caracas via Petare to Valles de la Tuy, 83.5 km. First sections opened 1886-8. "Then came a great flood, which destroyed part of the embankments, etc. It was reconstructed at great expense. Then the contractors failed on account of the Argentine crisis in 1889, and the line was sold. It now only runs as far as Petare (10 kilometres), and has, I believe, only two engines and eight or ten cars in working order. They might run further, and do so occasionally, but a daily service further than Petare would not pay. The line is most solidly constructed on the 3½ft. gauge, with iron sleepers, and has easy gradients." [14 reporting in 1901]

There had also been a dispute with the government around 1899, the Venezuela Central Railway Company saying that

its inability to complete the construction works was entirely owing to the government having defaulted on payments due.

Further sections were opened in 1911-13 and 1922. The first twelve kilometres out of Caracas were electrified in 1927, using amongst other vehicles a couple of ex West Hartlepool double-deck tramcars. Nationalised 1936. Closed 1961 or possibly as early as 1954.

Branches had been proposed from Cua to San Casimiro and to San Sebastián, also to Calabozo. Another would have run from Santa Teresa to Aragüita and Caucagua, and a final one from Santa Teresa to Taguay branching to reach Alta-gracia and Camatagua.



A carriage-side coat of arms from Venezuela, from an example transfer in the collection of Gerald Hartley. At a guess this might have been from the FCV, but this needs confirmation.

2-6-2T d/w 40", cyls. 14x20", built by Nasmyth Wilson in 1885

Ordered for the Caracas Antimano railway to 3' 0" gauge, regauged for the *FC Central*. Whilst that is what source [1] suggests, this is unlikely. It was the *GFV* which inherited the assets of the Caracas Antimano Railway, not the *FCV*. If these two engines did eventually come to the *FC Central* it may not have been until well into the 20th century.

1 'CARACAS'	w/n 296
2 'ANTIMANO'	w/n 297

2-6-2T d/w 39", cyls. 15x20", built by Dübs in 1886

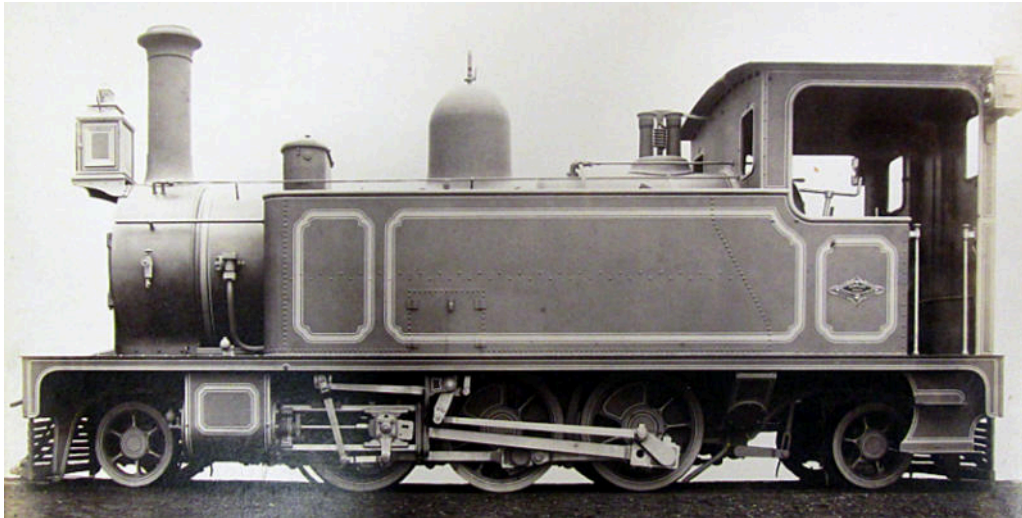
Ordered for Venezuela Central Railway. The first two of these may not have been numbered on their arrival, merely named.

3¹ 'SILLA'	w/n 2179	Sold to <i>GFV</i> , probably around 1889.
4 'ÁVILA'	w/n 2180	Sold to <i>GFV</i> , probably around 1889.

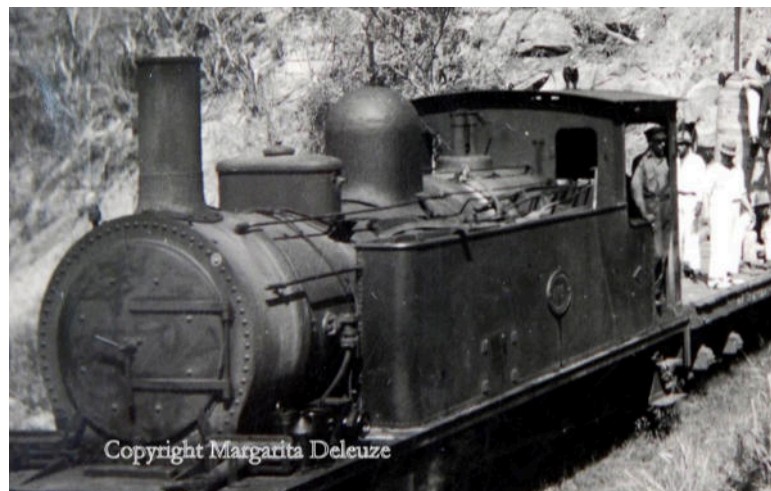
Brian Rumary's Dübs list says next four were 2-4-0T but with same sized wheels and cylinders. This is probably wrong. [1], however, says they were 2-6-0T. The basic wheel and cylinder dimensions on the other hand were identi-

cal to the 2-6-2Ts supplied at the same time to the Pto. Cabello and Valencia Railway so the locos may have been more or less identical. Dübs lists held at the Mitchell Library confirm six locos in this contract. Whilst at one point I suspected that these engines had never reached Venezuela, if several locos had perforcedly been sold to the *GFV* when the *FC Central* company entered bankruptcy in the late 1880s then these latter four probably became new nos. 1-4, thus rendering the numbers listed below correct.

5? ‘?’	w/n 2181
6? ‘?’	w/n 2182
? ‘?’	w/n 2183
? ‘?’	w/n 2184



Dübs 2-6-2T no. 2179.



One of these engines as running later with a stove-pipe chimney.



FCCV no. **4** number-plate, very possibly from the same loco as the works-plate below.



A works plate from Dübs 2-6-2T no. 2182.

0-6-0 d/w 36", cyls. 12x18", built by Dübs in 1888

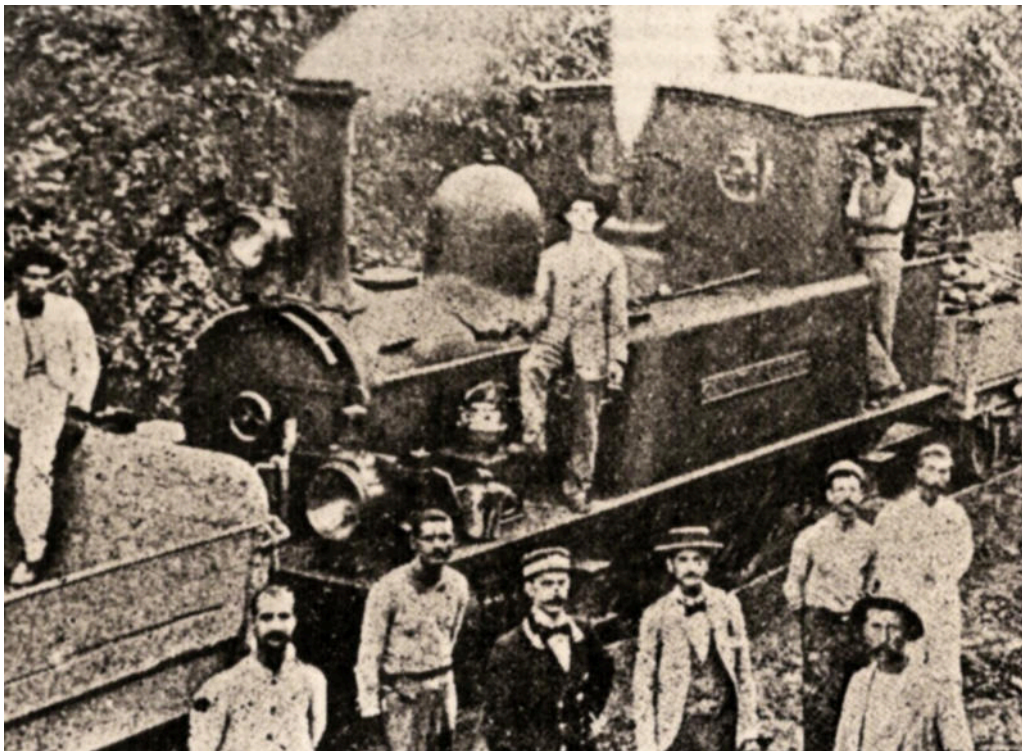
Ordered for Venezuela Central Railway.

2 'VENEZOLANA' w/n 2407 Numbered **5** later? See 1915 quote in Spanish below.

0-6-0T d/w 36", cyls. 10½x15", built by R. & W. Hawthorn in 1888

Ordered via J. E. & M. Clark & Co. for Venezuela Central Railway. Not built by Black Hawthorn as [1] suggests. Delivered 29th May 1888. Whilst the name is clearly displayed in the R&WH order book, the running number is fainter and looks as though it might originally have been **1**. This engine seems to have ended up in the *GFV* fleet along with a couple of the Dübs 2-6-2Ts, possibly as a result of the *FCV*'s financial woes around the turn of the century.

5 'CONSTRUCTORA' w/n 2111 Or possibly no. **3** [1]. Sold to *GFV*, probably around 1889 (?).



This tank engine, presumably the Hawthorn-built no. **5 'CONSTRUCTORA'**, more-or-less matches the description of one of the two *FCV* tank locos as being "like a small copy of the LBSCR 'Terriers' " [14]. It is intriguing to see a small British-built tank loco carrying German-style front lamps.

2-6-2T d/w 39"?, cyls. 15x20", built by Kerr Stuart in 1909, 1912 and 1919

Ordered for Venezuela Central Railway.

6 'ORINOCO'	w/n 1038	General overhaul 1917.
7 '?'	w/n 1039	Intermediate overhaul 1917.
8 '?'	w/n 1259	General overhaul 1917.

9¹? ‘?’

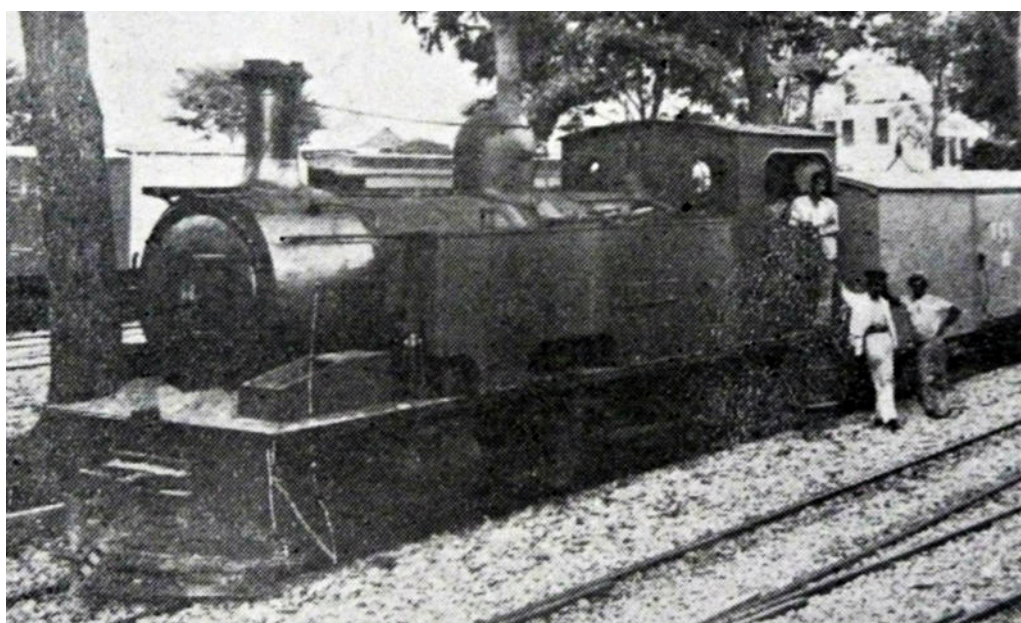
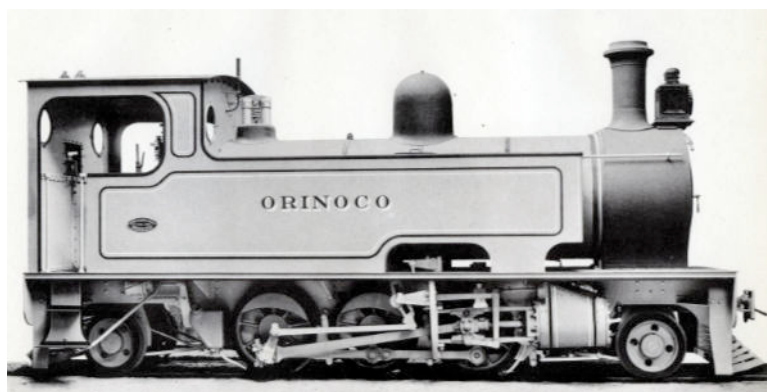
w/n 4085

‘Orinoco’ class.

10¹? ‘SANTA LUCIA’

w/n 4086

‘Orinoco’ class. The name ‘SANTA LUCIA’ was later re-used, perhaps suggesting that this was one of the engines lost in the river.



This photo supposedly shows a Kerr Stuart Orinoco class 2-6-2T no. **10 ‘SANTA LUCÍA’** on a train entering Los Valles del Tuy. It was published in an MOP memoria in 1938.

The 1910 memoria

The fleet was described as including six 2-6-2Ts, of which two were new, and one smaller machine:

MATERIAL RODANTE

El material de que dispone actualmente esta Empresa consta de los siguientes elementos:

Locomotoras.—Existen 6 de 35 toneladas, peso que se eleva a 38, con la carga de agua y de carbón, es decir, en disposicion de marcha. Tienen tres pares de ruedas motoras acopladas y un ‘bogie’ de dos ruedas a cada lado de la maquina ; de modo que el peso total se reparte asi : 30 toneladas sobre los tres ejes motores y 8 sobre los dos ‘bogies’. Ellas consumen una y media toneladas de carbon de panelas en un viaje redondo entre Caracas y Santa Lucia. De estas locomotoras hay dos nuevas.

Tambien dispone la Empresa de una locomotora de 25 toneladas, que pesa 28 en tren de marcha. Estas maquinas estan provistas de dos frenos, de vapor y de mano ; y según informes del señor Administrador, se les piensa adaptar tambien el freno de contra-vapor sistema Le Chatelier.

The two new engines were clearly nos. **6** and **7** from Kerr Stuart in 1909, but that means that only four of the earlier 2-6-2Ts were still in the fleet. We have eight listed above, but probably with two of the six Dübs engines having been sold to the GFV. That leaves six, but the erstwhile Caracas Antimano locos may not yet have arrived on this line from the GFV – if indeed they ever did.

A serious accident

In May 1910 there was a serious derailment at La Vega del Muerto. One or perhaps two locos overturned in a ravine. One driver survived but two railwaymen were killed. The photos displayed below were taken in 2008 by Sr. Juan Carrasco, about 500m upstream from the erstwhile Arenaza station and bridge. They, and others, are displayed in the album *Proyecto: Locomotoras del Ferrocarril Central de Venezuela* of the Facebook group *Gran Ferrocarril de Venezuela*.



The driving wheels visible in the above image clearly have nine spokes each and balance weights covering two spoke spaces, which is the pattern visible in the Dübs 2-6-2T builders' photo displayed earlier.





It would seem that there are the remains of two locos in the river. One has its frame and wheels upside down and the boiler lying separate, as seen in the first two images. The other engine is in one piece but lying on its side, as shown in the third photo. The first picture suggests that the upside-down frame is of a six-coupled loco with Walschaerts valve gear and the length of the frame implies that it might have belonged to one of the 2-6-2Ts of the FC Central.

0-4-2T d/w ?, cyls. 8x12", built by Kerr Stuart in 1913

Ordered for Venezuela Central Railway.

9 ‘OCUMARE’

w/n 1299

Later renamed **‘BOLIVAR’**, now plinthed at Barquisimeto.



A 1913 press report

A report of the Ordinary General Meeting of the Venezuela Central Railway Company, held on May 29th 1913 at 123 Dashwood House, New Broad Street, in the City of London, included a statement “In view of the increased traffic the company has shipped two first-class locomotives and four open wagons and four closed wagons of the bogie type, and these are now in operation.” These were presumably nos. **8** and **9**.

1914 memoria

This volume includes the statement: “*Material Rodante. Ampliando mi carta del 19 de setiembre próximo pasado digo a usted que esta empresa además de la locomotora grande, locomotora pequeña y los dos coches citados en aquella,*

ha recibido otro coche para pasajeros de segunda clase, diez wagones de compuerta y ocho wagones cubiertos para cargas.” [7] The new engines mentioned presumably include Kerr Stuart 2-6-2T no. 1259 and the 0-4-2T ‘OCUMARE’. The total number of engines was given as eight [16 1914 pd514 p104a].

1915 memoria

“Material rodante La Compañía posee 9 locomotoras, 9 wagones o coches para pasajeros, 22 wagones cubiertos para mercancías, 32 plataformas para leña, etc. y 4 wagones jaulas para el transporte de animales. Las locomotoras Nos. **1, 2, 3, 4, 6, 7 y 8** son del tipo 2-6-2 y pesan 40 toneladas en disposición de marcha, de las cuales 34 gravitan sobre los tres ejes motores. Los cilindros, que son (los, tienen 381 milímetros de diámetro y la carrera de los émbolos es de 508 milímetros. El diámetro de las ruedas motrices es de 991 milímetros. Con estas dimensiones y admitiendo una presión de 9,5 atmósferas para el vapor en la caldera, hemos calculado que estas máquinas pueden desarrollar un esfuerzo máximo de tracción de 4.700 kilogramos. Como se sabe, la facultad de una locomotora para arrastrar una carga determinada en terreno horizontal depende del estado de los rieles, que influye poderosamente sobre la adherencia. Además de las locomotoras mencionadas posee también la Empresa dos más pequeñas: la marcada con el N° **5 denominada "La Venezolana"**, de 25 toneladas de peso y la N° **9**, de 13 toneladas. Las máquinas **1; 2, 3, 4 y 5** están en servicio desde 1888 y las otras se han ido agregando en los cuatro o cinco años últimos. Todas estas máquinas tienen freno de mano y freno de vapor, pero sólo la N° **1** ha sido provista hasta ahora del freno de contravapor, sistema Le Chatelier.” [8] This paragraph is clearly stating that all the locos from no. **1** to no. **9** were in the fleet in 1914. So which engines fell in the river in 1910? Might they have been the two Nasmyth Wilson 2-6-2Ts?

1918 memoria

“Taller mecanico.—Además de todos los trabajos menores, como reparaciones de hierros, etc., el trabajo del taller ha sido, durante el año. así: reparación general de los **locomotoras números 3. 4. 6 y 8**, media reparación a la **número 7;**” [10]

1920 memoria

“Combustible.--Una de las locomotoras nuevas viene montada para quemar pe-tróleo crudo, y estamos haciendo tanques para depósitos a fin de usar este combustible en el trayecto Tismare-Caracas.”

1921 memoria

“Material rodante.—Hemos estado atendiéndole y mejorándolo constantemente. La locomotora No. 8 ha permanecido en el taller haciéndosele reparaciones generales, principalmente en la caldera que ha sido del lodo acondicionada, la armadura reforzada y las chumaceras embonadas, a fin de poder compensar el desgaste del uso. La No. 4 ha sido enteramente reconstruida y se le ha puesto caldera nueva, estando ya casi lista para el servicio.”

1922 memoria

“Material rodante.—Las dos locomotoras nuevas están facilitando la composición de las viejas; pero a causa de la escasez de mecánica competentes, la reparación completa de éstas tardará mucho tiempo. Sin embargo, una de ellas (la número 2), ha sido completamente restaurada con caldera, caja de fuego y caja de humo nuevas y está en actividad en el tráfico. Tanto a ésta como a la, número **1**, las hemos provisto de un aparato contra chispas del último modelo, que está dando buen resultado en la República Argentina. Estamos preparando la renovación completa de otra de las máquinas viejas y las que están en el tráfico reciben sus reparaciones corrientes. para conservarlas en buen estado de servicio. Para facilitar la reparación de piezas rotas y no tener que esperar todo el tiempo que dilata hacerlas venir de Europa, hemos montado en nuestro taller un aparato para soldar por medio de un arco eléctrico, el cual ya está en uso. También estamos montando otra sierra circular para facilitar el corte de leña para las locomotoras.”

1925 data in US report

The fleet was recorded as including nine 40 ton engines which will have been the 2-6-2Ts, one of 25 tons which would

have been an 0-6-0T, and one of thirteen tons presumably the Kerr Stuart 0-4-2T. This means that another two 40 tonne locos had been acquired since 1915. What were they?

1936 total

The 1936 *Supplement to the World Survey of Foreign Railways* gives the number of locos on this railway as eleven.

0-4-4T d/w ?, cyls. ?, built by ? in ?

Ordered for ?

3²

w/n ?

2-6-2T d/w ?, cyls. ?, built by Hartmann in 1889

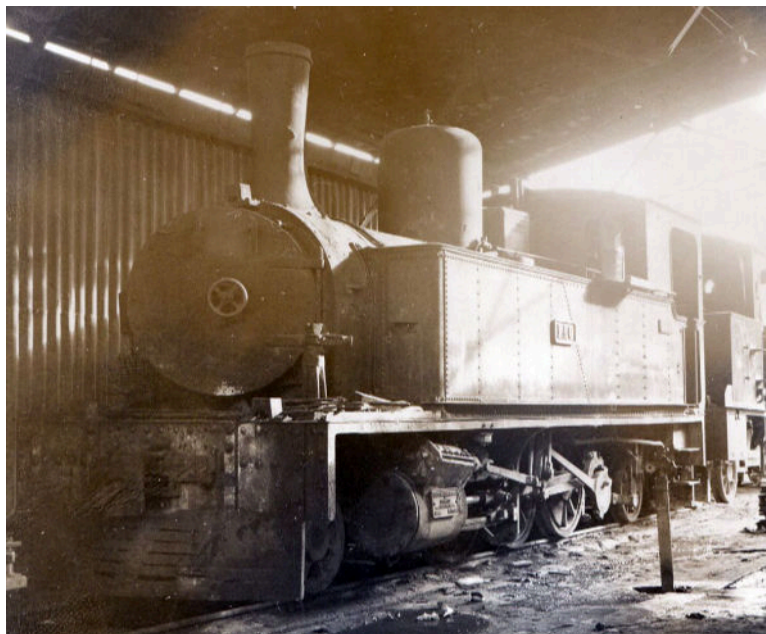
Ordered originally for *Gran FC de Venezuela*. “Después de la estatización por parte del Gobierno que presidió el General Eleazar López Contreras en el año de 1936 (mediante Decreto Ejecutivo del 21 de noviembre de ese año), por el terrible estado del servicio que prestaba y las paupérrimas condiciones del material e infraestructura de la línea, se procedió, con recursos provenientes del propio Estado Nacional, a invertir para recuperar su operatividad. En el año de 1937 se adquirieron dos locomotoras del Gran...” [Source 1, Glen Beadon’s loco list, original source unknown]

? ‘GUARICO’

w/n 1606

8 ‘PAO’

w/n 1607



This photo apparently shows ex-GFV 2-6-2T ‘PAO’ on the FC Central, implying perhaps that this was the second of the locos transferred in 1937. One wonders whether such transfers from GFV to FCV could have been made using the Caracas tramway network.



Fotografía de un hecho único en la historia de la ciudad: el paso de una locomotora, cierta noche del mes de noviembre de 1931, por los rieles del tranvía que corrian alrededor de la Plaza Bolívar. La difícil maniobra realizada bajo la dirección del Ingº Luis Caballero Mejías, director de la Escuela de Artes y Oficios, se llevó a cabo con todo éxito, y tuvo su origen en la operación compra pactada por el Ferrocarril Central al Gran Ferrocarril de Venezuela. En la foto la locomotora "Guárico", estacionada brevemente en la esquina de Las Monjas.

Following on from the caption to the previous image, here is proof that the transfer from the GFV to the FCV was indeed made over the tram tracks. Source unknown.

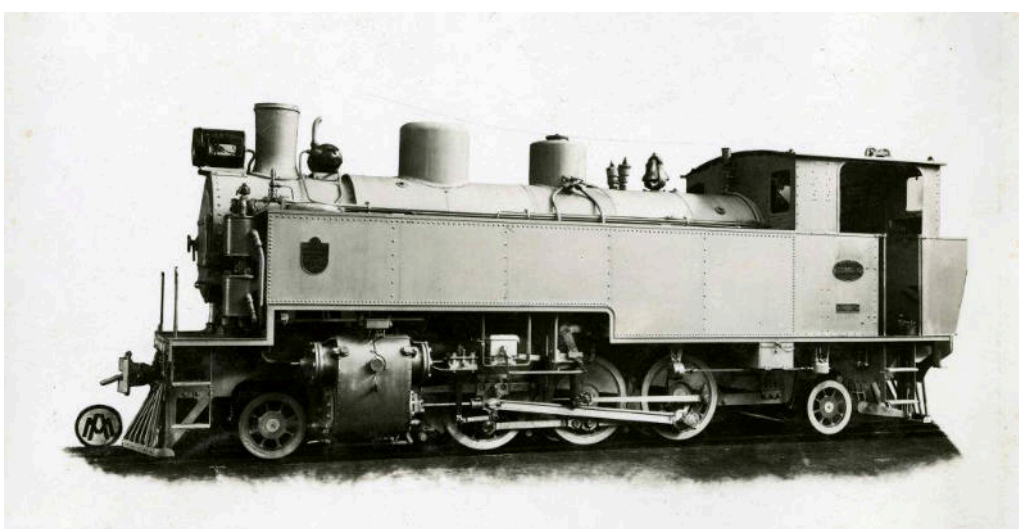
2-6-2T d/w ?, cyls. ?, built by Tubize in 1938

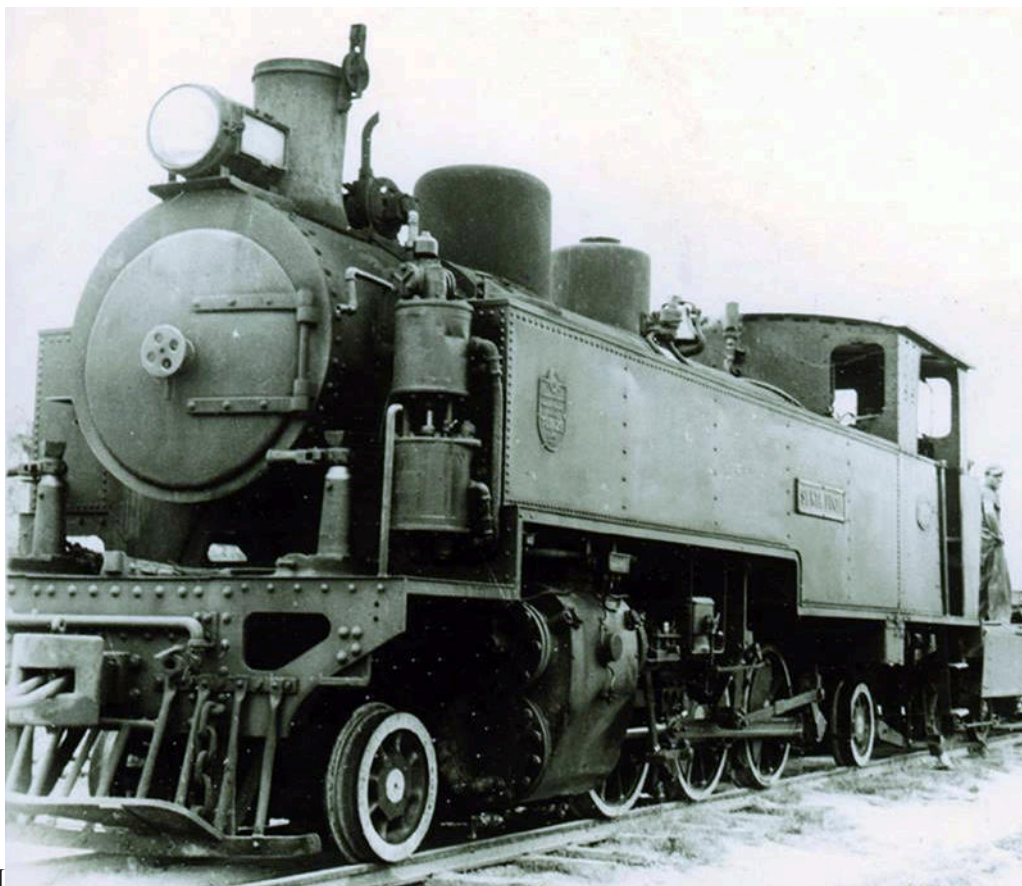
Ordered for *FC Central de Venezuela*. A fourth loco, but to metre gauge, was ordered at the same time for the *FC Nacional de Santa Barbara*.

?1 or 10 'SANTA LUCIA' w/n 2247 It has been said that this loco was to have been named 'LLANERA'.

2 'ORINOQUEÑA' w/n 2248

3 'APUREÑA' w/n 2249



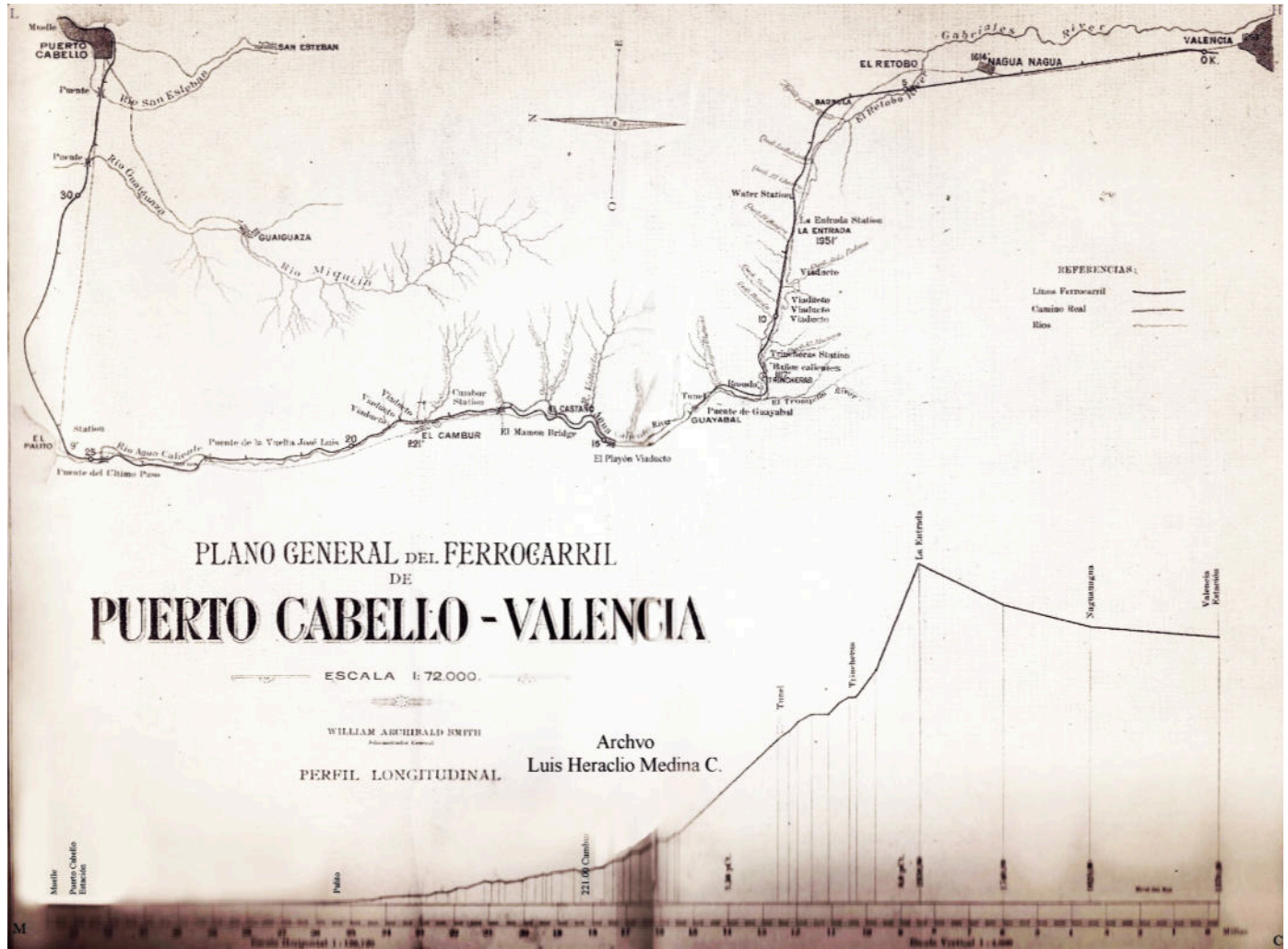


10.2.3 El FC de Puerto Cabello a Valencia

1888-1957

Background

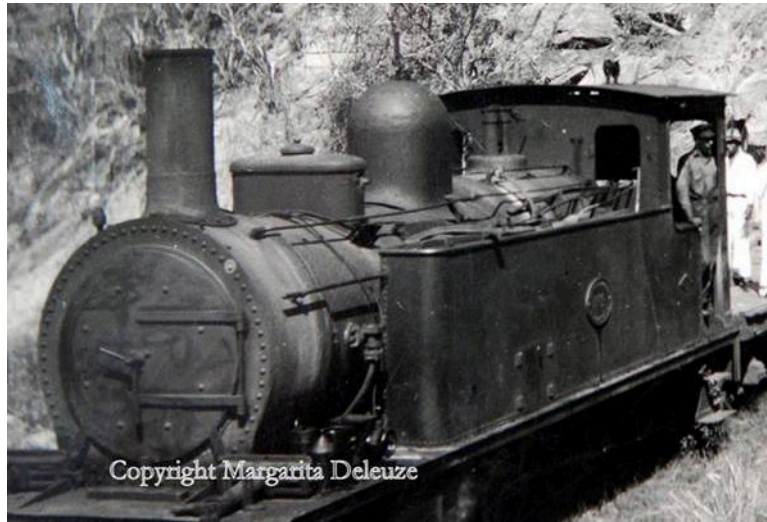
3' 6" gauge. Abt rack section. 54.8 km. Opened 1888, taken over by Bolivar Railway in 1944, nationalised 1946 and closed 1959.



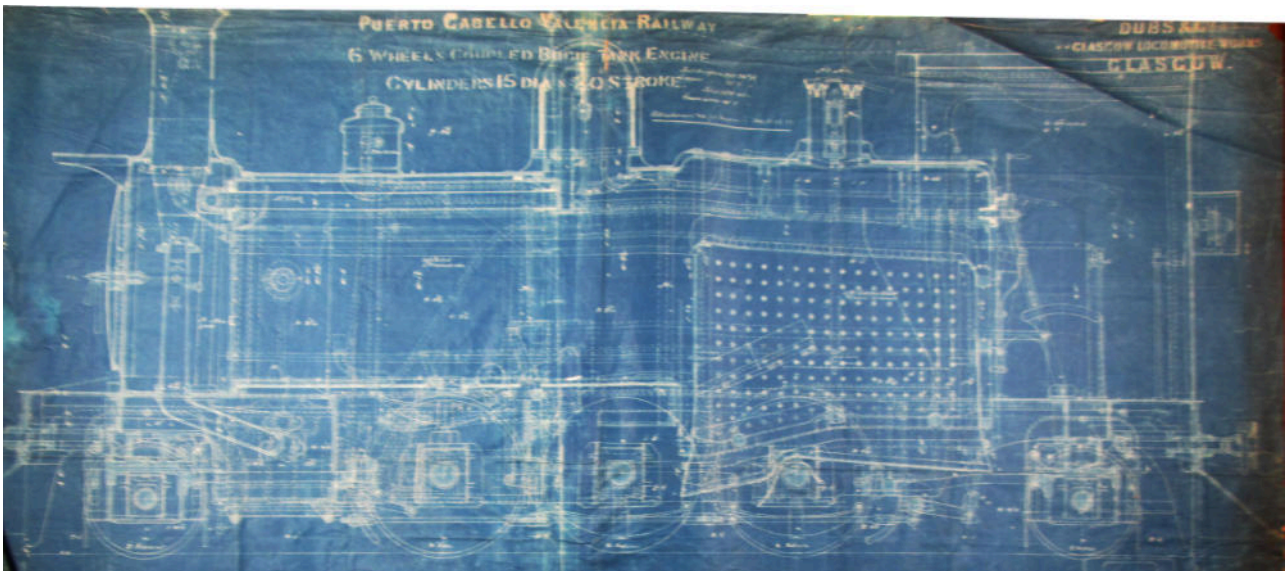
2-6-2T d/w 39", cyls. 15x20", built by Dübs in 1887 and 1890

Ordered for Puerto Cabello & Valencia Railway. Dübs list gives dates as 1886 (first three) and 1887 (remainder). The Report of the Directors dated May 10th 1887 says: "Of the six ordinary tank engines to be supplied two have been shipped and the remaining four, as also the two special rack engines for the incline, are now in course of construction."

1	w/n 2188	Received a new copper firebox in 1907 [6]
2	w/n 2189	
3	w/n 2190	In service 1921.
4	w/n 2191	
5 ¹	w/n 2192	Probably destroyed in the derailment of a down goods train in July 1913. See below.
6	w/n 2193	Received a new boiler in 1908 [6]
9	w/n 2764	Received a new boiler and new tanks in 1908 [6]



This is one of the Dübs 2-6-2Ts, and appears to be identical to those supplied to the FCCV. Note that it does seem to have the same cut-out beneath the tank as is shown in the photo below of engine no. 5 after its accident, though in this image the space is covered by small doors.



Drawings found in the Hunslet archive at Statfold Barn Farm in Staffordshire, UK.

The Hunslet Engine Company took over the assets and goodwill of a number of defunct British loco builders over the decades.

4zz-2T rack locos d/w ?, cyls. ?, built by Beyer Peacock in 1887 and 1895

Note that these were solely rack locomotives, with no provision for driving through any of the wheels.

Hills and Patrick's 1982 book *Beyer Peacock Locomotive Builders to the World* states:

“In 1887, the first rack engine was built at Gorton Foundry, one of an order for two (Order 6909) for operation on a mountain rack section of the Puerto Cabello & Valencia Railway, in Venezuela, with an incline of 1 in 12½, and a length of 2¼ miles. This highly ingenious machine embodied patents held jointly by Lange and James Livesey. The trains were brought to the incline by ordinary adhesion engines and the rack engines took their place on it. They normally pushed four wagons with a total weight of 70 tons, up the slope. In some notes supplementing a paper about this line given by J. Carruthers before the Institution of Civil Engineers, Lange wrote: “It was determined from the first to obtain the propelling power of the engine by means of cog-wheels and rack-rails only, instead of by both adhesion and rack, as the engines could then be of simpler and lighter construction and also because the country through which the line runs is subject to be suddenly overrun with locusts when the adhesive power would be of no avail.”

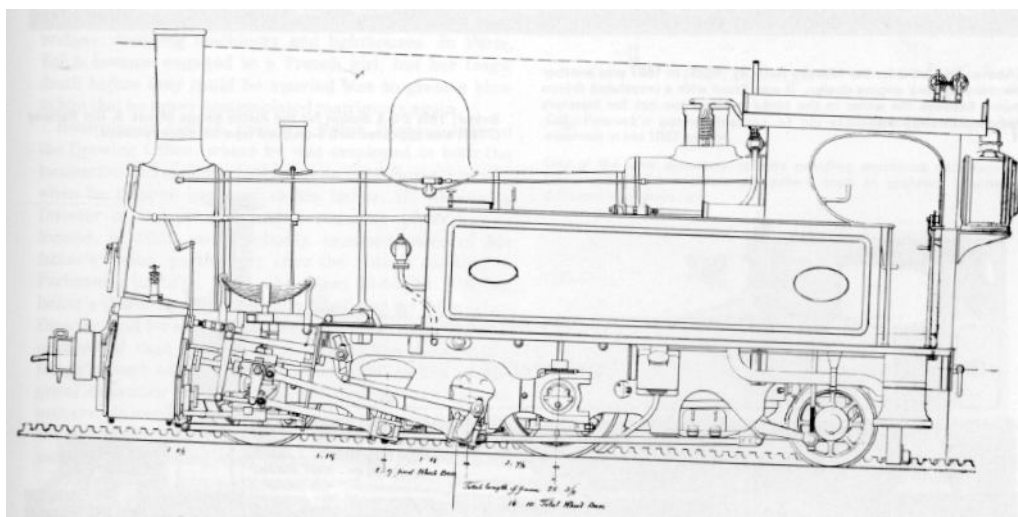
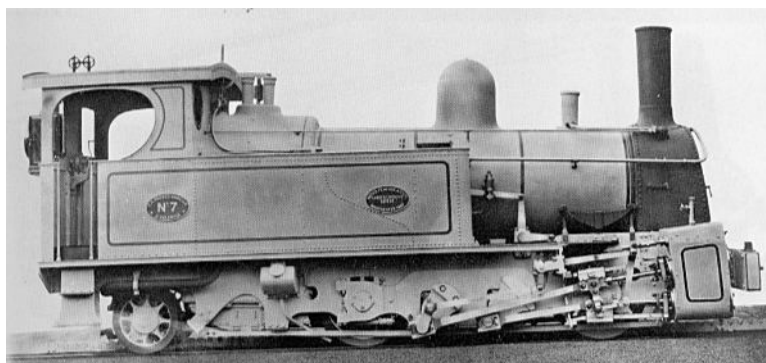
The engines had sloping boilers to compensate for the change of water level on the incline, and were the first engines

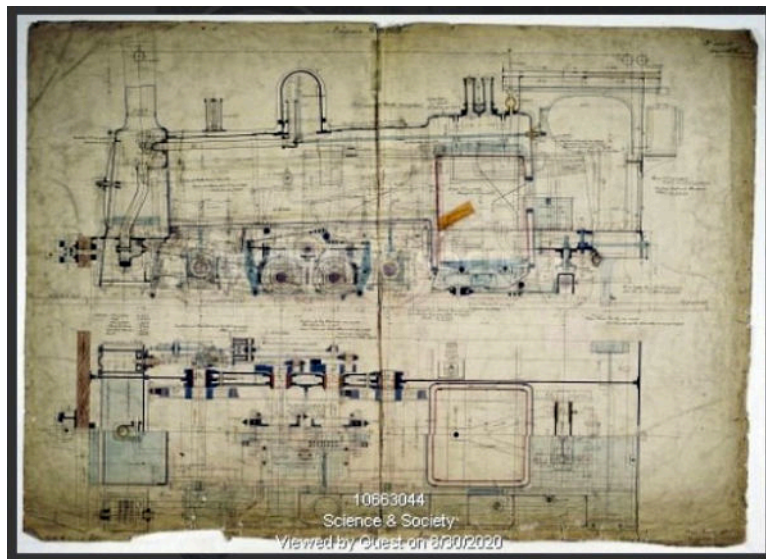
built by Beyer, Peacock to have Walschaert's valve gear. Lange and Livesey's patent concerned the arrangement of the cogwheel frames and cylinders. There were two cylinders on each side, one above the other, with a single slide valve serving both, and two driving shafts, fitted with pinions to engage the rack in the centre of the track, the rear shaft being driven by the upper pair of cylinders, and the front by the lower pair. In Lange's words: "This arrangement ensures that each set of cog-wheels will do exactly the same amount of work and at the same moment. As each cogwheel is enabled to accommodate itself freely to any irregularity in the rack-rails, the latter are much less strained and the friction between the wheel and rail is reduced to a minimum. "Further, the cogwheel discs are not fixed rigidly to the axles but, by means of a special spring device, can yield to a small extent and thus accommodate themselves to any irregularities in the teeth of the rack."

The driving shafts were mounted on a frame, supported on the axles of the adjacent running wheels ; as a result the rack system always remained level with the track, and unaffected by the spring suspension of the locomotive. Six years later, it was reported that these engines were doing excellent work during tests to find out how they performed. A third was supplied in 1895 (Order 7980). "

Herewith a descriptive paragraph from the 1914 *MOP memoria* [16 1914 pd511 p104]: *A este respecto, apenas podrían citarse aquí, como detalle interesante, las locomotoras especiales empleadas en la línea del Ferrocarril de Puerto Cabello a Valencia, para el tráfico por el plano inclinado. Pesan 40 toneladas, y sus ruedas dentadas, que engranan con la cremallera, son puestas en movimiento por cilindros completamente independientes; así es que cada máquina tiene cuatro cilindros, dos de cada lado, y colocado uno encima del otro. La fuerza de tracción de estas máquinas es de 90 toneladas, fuera de su propio peso, en pendientes de 8% y con una velocidad de 10 kilómetros por hora. El término medio de la carga que transporta cada una, en el tráfico ordinario, es de 78 a 80 toneladas, incluido el peso muerto de los wagones, con una velocidad de 14 kilómetros más o menos. En la bajada, ellas tienen suficiente fuerza de retención, pues, además de que los cilindros trabajan entonces como compresores, las máquinas disponen de frenos de vapor muy potentes, y los carros y wagones del tren están todos provistos de frenos Heberlein.*

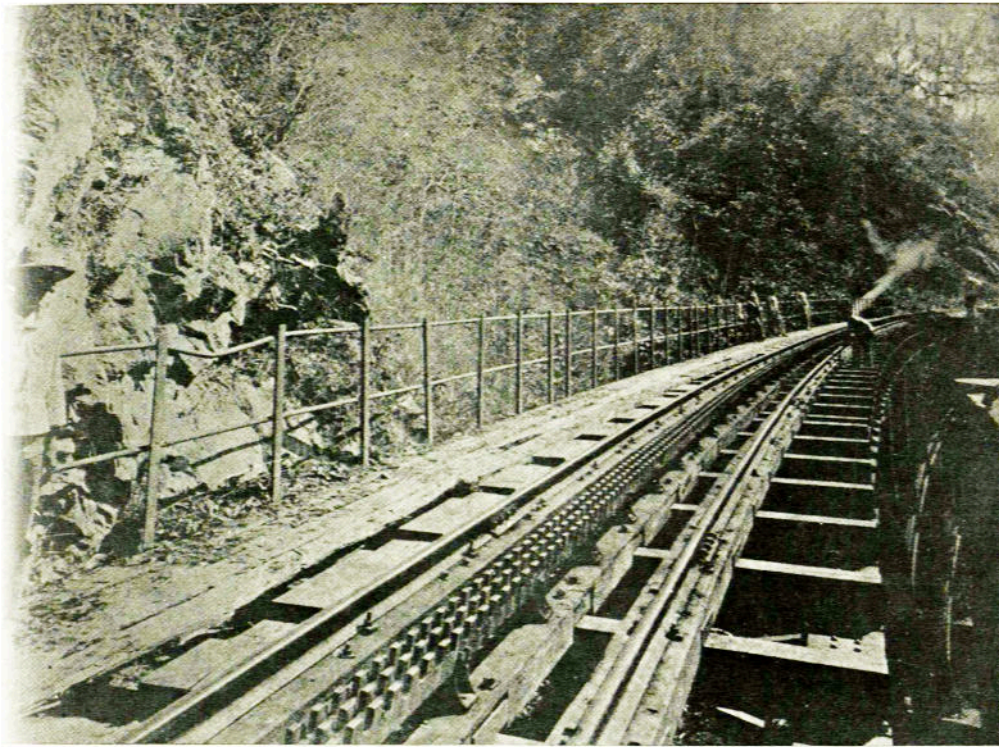
7	w/n 2861	
8	w/n 2862	In service 1921.
10	w/n 3693	BP order 7980.





Hi-res copies of this image can be purchased from the Science & Society Picture Library.
Their ref 10663044.





FRENTE VUELTA DE PUERTO CABELLO A VALENCIA

A most interesting photo, published in *El Cojo Ilustrado* in 1899, showing FCPCaV track with a three bar rack rail in the centre. It has often been said that the FC *Trasandino* between Chile and Argentina was the only route to use triple Abt rack, all others using double, but it seems that this may not have been the case. Certainly the vegetation in the background of this image looks more like Venezuela than the southern Andes.

A possible later design

A Beyer Peacock drawings list archived at SIM in Manchester, pp91-92, records that an outline drawing was prepared in September 1904 for a 2-6z2-2T rack and adhesion design with d/w 37"(?), carrying wheels 24" in Cartazzi boxes, adhesion cyls. 15½x20", rack cyls. 11¾x16" driven by spur gears, side tanks 1100 gals. and a 70 cu. ft rear bunker. Clearly this was never built.

0-4-0ST d/w 39", cyls. 12x18" oc, built by Yorkshire Engine Co. in 1911

Ordered for Puerto Cabello & Valencia Railway. The 1911 *MOP memoria* referred to this: *El material rodante ha sido aumentado con una Locomotora de maniobras en Puerto Cabello, cuyos principales servicios los presta en el transporte de las carnes congeladas al muelle. También se importó una nueva caldera para la Locomotora de Cremallera* [16 1911 pd445 p135].

11	w/n 1096	NB YECa list says 1096, not 1095 as reported elsewhere. Definitely in service shunting at Puerto Cabello during 1917, as reported <i>inter alia</i> in an accident report from October that year.
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The fleet during the first few years of the new century

The annual reports and statements of accounts during the first decade or so of the 20th century show no changes in the loco fleet until the arrival of no. **11** in 1911. However, the purchase of two new boilers was recorded in 1908 and there may well have been others.

The 1913 accident

"Cumplimos el penoso deber de llevar a conocimiento de usted lo acaecido en nuestra linea el día de ayer.

El tren de pasajeros que salió de Puerto Cabello ayer a las 8 a. m. descarriló a las 8 y 55 en el kilómetro 33.5, debido a haberse atravesado inopinadamente una res en la vía. Los pasajeros fueron trasbordados a un tren que despachamos de esta ciudad para traerlos y sólo sufrieron el retardo consiguiente. Llegaron a Valencia a la 1 pm. El tren de carga que salió de Las Trincheras a las 2,05 p. m. compuesto de la locomotora y 4 wagones cargados con destino a Puerto Cabello adquirió una grandísima velocidad debido a lo húmedo de la línea por causa de la lluvia y a pesar de los esfuerzos del maquinista y frenero que hicieron funcionar todos los frenos no pudieron lograr disminuir la velocidad. Al llegar a la curva en el kilómetro 24 el tren descarriló violentamente y se lanzó al precipicio, quedando convertido en pedazos; el Maquinista—Cesáreo Crizón—y el fogonero—Benabé Sánchez quedaron muertos y el frenero—Ramón Pereira—que fué lanzado del tren en el momento del descarrilamiento quedó aporreado, sin ser de gravedad su estado. Inmediatamente que llegó a mi conocimiento este desgraciado suceso salí a hacer la correspondiente averiguación y a tomar las medidas propias del caso; los cadáveres del maquinista y fogonero muy destrozados, fueron llevados a El Cambur donde se les das sepultura y el frenero herido se trajo a esta ciudad donde se le presta debida asistencia. Todos estos informes han sido dados por el frenero que quedó con vida, y como personalmente hice revisar por nuestro Ingeniero en presencia del Inspector Nacional de este Ferrocarril, el estado de la línea en el lugar del suceso, pude constatar que está en las justas condiciones requeridas. No podemos sino atribuir a un descuido del maquinista lo sucedido pues todo hace creer que perdió el dominio de la locomotora y que cuando quiso detenerla ya era tarde. Las pérdidas materiales sufridas son: 1 locomotora, 2 wagones 1 wagón casilla perteneciente al Gran Ferrocarril de Venezuela y una plataforma.” [7]



The wreck of loco no. 5, seen from the rear left.

Correspondence after the accident

15 de julio de 1913.-1049 y 559 Oficio numero 661.

Senor Administrador del Perivcarril de Puerto Cabello a Valencia. Valencia.

Se ha recibido en este Despacho el Informe de esa Empresa relativo al accidente ocurrido el dia 10 del presente a un tren de carga en el kilómetro 24 de la línea, y en contestación manifiesto a usted que este Ministerio tiene informes de que la causa principal del accidente del 10, que costó la vida a dos empleados de la Empresa, fue la falta de frenos apropiados en los wagones, pues solo uno de ellos tenia freno automatico, mientras que los otros tres los tenian de cordon, incapaces de poder contener una velocidad superior a la acostumbrada; y como el articulo 54 del Decreto Reglamentario de los Ferrocarriles, ordena el use exclusivo de frenos automaticos, ligados de tal manera, que el

maquinista los tenga bajo su dominio y pueda aplicarlos todos en un solo movimiento, este Ministerio lo hace presente a la Empresa en el caso concreto de que se trata y a cuya averiguación se ha procedido por el Órgano del Ministerio de Relaciones Interiores:

Dios y Federación,

Se transcribió al Ministerio de Relaciones Interiores.

D. A. COROKIL.

And the reply from the railway company:

Ferrocarril de Puerto Cabello a Valencia--Valencia: 17 de julio de 1913. Ciudadano Ministro de Obras Públicas. Caracas.

En contestación al atento oficio fecha 15 del corriente, tengo el honor de manifestarle que todos los wagones que iban en el tren de carga que descarriló el día 10 del presente mes, estaban provistos de frenos que, aunque son de cordón, resultan automáticos, y estando bajo el dominio del maquinista pueden ser aplicados todos en un solo momento.

Desgraciadamente como resultado de nuestras averiguaciones, hemos podido comprobar que el freno no estaba ligado a la máquina, debido a una funesta negligencia del maquinista y el conductor. El primero ha pagado su falta con la vida y el segundo se ha fugado y hasta la fecha no sabemos su paradero.

Puede el señor Ministro estar seguro de que se tomaran todas las medidas humanamente posibles, para evitar la repetición de este desgraciado suceso.

Nos suscribimos de usted atto. s. s. y amigos, por la Compañía del Ferrocarril de Puerto Cabello a Valencia.

W. A. Littell. Administrador.

More detail from an inspection of the wreck:

Oficio Numero 323. Ciudadano Ministro de Obras Públicas

Su Despacho. A título de información y mientras se envía a ese Despacho copia D. 367 de la indagación judicial que actualmente se practica por los Tribunales competentes del Estado Carabobo, sobre el accidente ferroviario ocurrido en el kilómetro 23 3/4 de la línea entre Puerto Cabello y Valencia, el día 10 de los corrientes, cumpléme transcribir a usted la siguiente comunicación dirigida a este Despacho por el ciudadano Gerardo A. Arria, desde Las Trincheras, con fecha 22 de los mismos:

Me permito seguir informando a usted como le ofrecí en mi anterior de fecha 13 del presente, de las causas del descarrilamiento del tren de carga en la curva del kilómetro 23 y, del día 10 del presente mes; mas por las señales que encontré en la máquina, se ve que cuando el maquinista hizo uso del contra vapor fué con el freno de la máquina trancado y esto dió lugar a que se saliera la máquina de la curva. También es de necesidad que usted sepa que las curvas, puentes y viaductos de esta línea necesitan un contra-riel por lo estrecho de la vía, como también quiero informarle que se sacaron los 3 vagones de carga y los víveres y el café que ellos conducían; la otra presa que fué una góndola de balasto se sacará en parte, y de la máquina le diré que a ésta se le echó a perder la caldera y varias piezas y la Empresa ha resuelto sacar las piezas que estén más útiles; como también debo decirle, que los 3 vagones de carga uno fué de la Compañía del Gran Ferrocarril de Venezuela y dos de esta Empresa; daré a usted cuenta de las piezas que dejen junto con la caldera y de su estado.

Dios y Federación.

C. ZUMETA

1914 memoria

This year's *MOP memoria* states that the railways has ten locomotives. That is logical given that one had been lost in the accident.

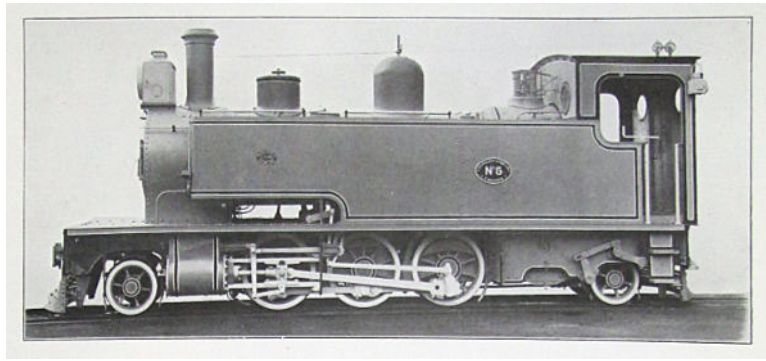
2-6-2T d/w 39", cyls. 15x20", built by Hunslet in 1915

Ordered for Puerto Cabello & Valencia Railway. Probably purchased as a direct replacement for the original no. 5¹ destroyed in the derailment in July 1913.

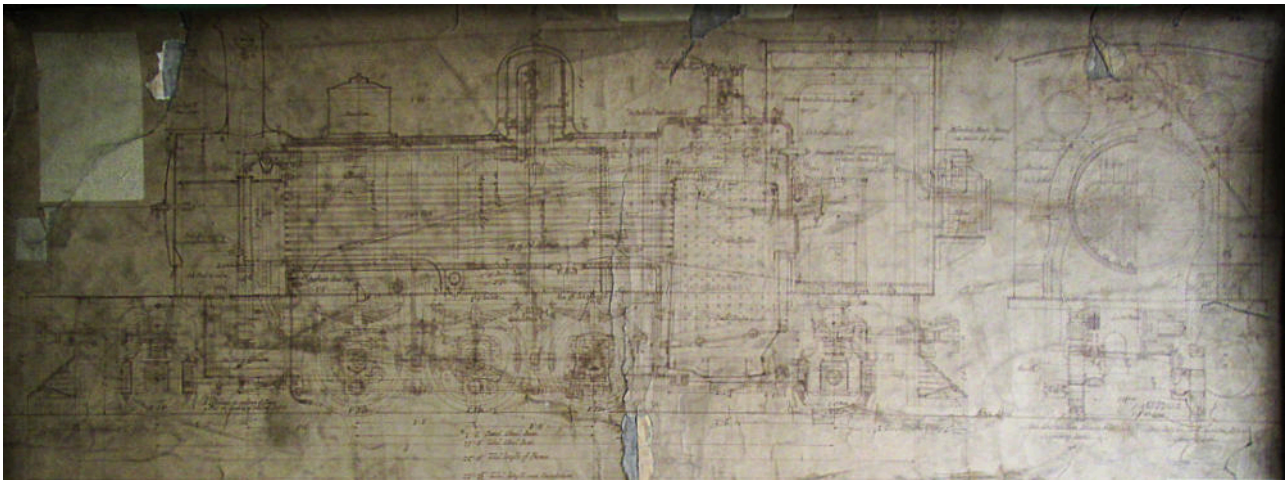
5²

w/n 1152

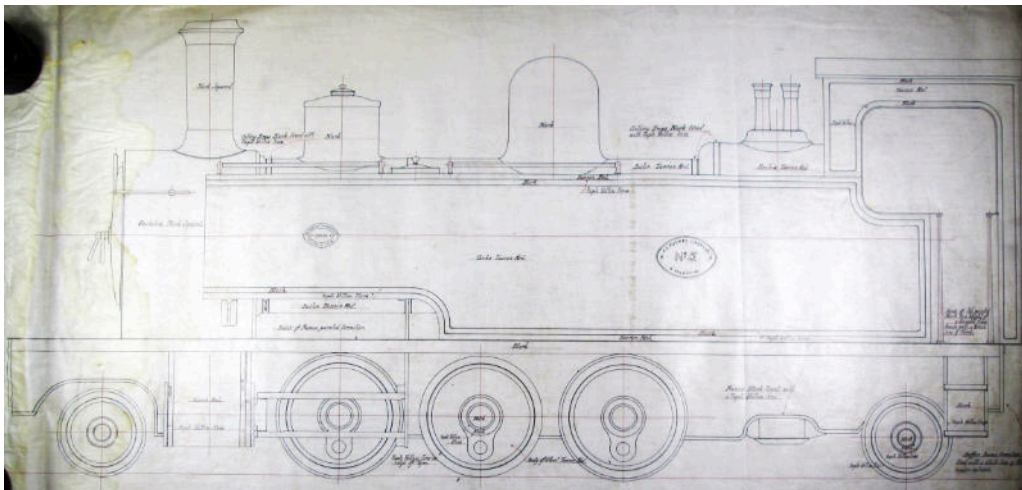
Also Hunslet 1201 ordered in 1920, but never completed after order cancelled [1].



It is noticeable that the new no. 5, seen here on a Hunslet publicity sheet, was not identical to its predecessor. Comparison with the accident photo on the previous page reveals a different tank shape, different wheel balance weights, and the absence of the sandbox visible in that view.



A GA drawing found in the Hunslet archive at Staffold Barn Farm in Staffordshire, UK.



And a rather simpler diagram from the same source.

1917 memoria

“Documento numero 210. Estados Unidos de Venezuela.—Ministerio de Obras Publicas.—Direccion de Vias de Comunicacion y Acueductos.—Caracas: 16 de marzo de 1916.-107 y 58.

Senor Administrador del Ferrocarril de Puerto Cabello a Valencia. Valencia. Con fecha 13 de los corrientes dice a este Ministerio el ciudadano Presidente del Estado Carabobo lo siguiente: "Este Gobierno ha sido informado de que en la semana pasada chispas desprendidas de la chimenea de una de las locomotoras del Ferrocarril de Puerto Cabello a Valencia, produjeron un incendio en la hacienda "Berbula". Cumpleme, pues, llevar el hecho a conocimiento de ese Ministerio, rogandole se sirva llamar la atencion acerca del caso a la Campania del expresado Ferrocarril

para que esta adopte un sistema apropiado a fin de impedir el esparcimiento de las chispas. pare quo no se repitan siniestros de ese naturaleza.—Dios y Federacióm—Emilio Fernandez"."

"Estados Unidos de Venezuela.—Ministerio de Obras Publicas.—Dirección de Vias de Comunicación y Acueductos.—Numero 1.387.—Caracas: 10 de agosto de 1916.-107 y 58. Señor Administrador del Ferrocarril de Puerto Cabello a Valencia. Valencia. Con fecha 7 de los corrientes dice a este Ministerio el ciudadano Inspector Nacional de ese Ferrocarril, entre otras cosas, to que sigue: "Luego en el tren que venia de Puerto Cabello pare esta por la tarde se declaro un incendio motivado a que usan leña en vez de carbon, incendiando un wagon de pasajeros y produciendo la consiguiente alarma.

Este Ministerio llama a usted la atencion sobre lo prescrito en el aparte 2o del articulo 192 del Reglamento para la Esplotacion de los Ferrocarriles en Venezuela, vigente, pues ya ha habido casos en que el uso de lena como combustible en los ferrocarriles ha ocasionado perjuicios, no solamente a estos sino a terceros."[8]

1920 memoria

"Material rodante. Todas las máquinas, coches y vagones están en perfecto buen estado, debido a la vigilancia y reparación que se ha dedicado a ellos. Hay pedidas dos calderas nuevas para reemplazar aquellas que están ya algo deterioradas por sus muchos años de servicio. En una de las locomotoras de la sección de la cremallera, se instaló en el mes de octubre un aparato para quemar petróleo, el cual hasta ahora no funciona con toda la regularidad deseada, debido a pequeños inconvenientes con los ladrillos refractarios de la caja de fuego, dificultades éstas que son inherentes a toda instalación nueva, por una parle, y por otra, que las máquinas de esta sección ofrecen más dificultades que las de adhesión. Sin embargo, se están corrigiendo poco a poco esos defectos, y sin duda este nuevo combustible dará los resultados apetecidos."

1921 memoria

"Material rodante.—Todas las máquinas; coches y vagones están en perfecto buen estado, habiéndos dedicado un cuidado especial en su conservación. Corno, en la sección Cremallera, el uso del petróleo ha dado tan buenos resonados en dos de las máquinas, se está procediendo a la instalación de un aparato para quemar petróleo en la tercera máquina. "

1925 data in US report

Ten locos were reported to be in the fleet. One must have been withdrawn for some reason between 1915 and 1925, or perhaps an engine under reconstruction was not counted in the list.

1936 total

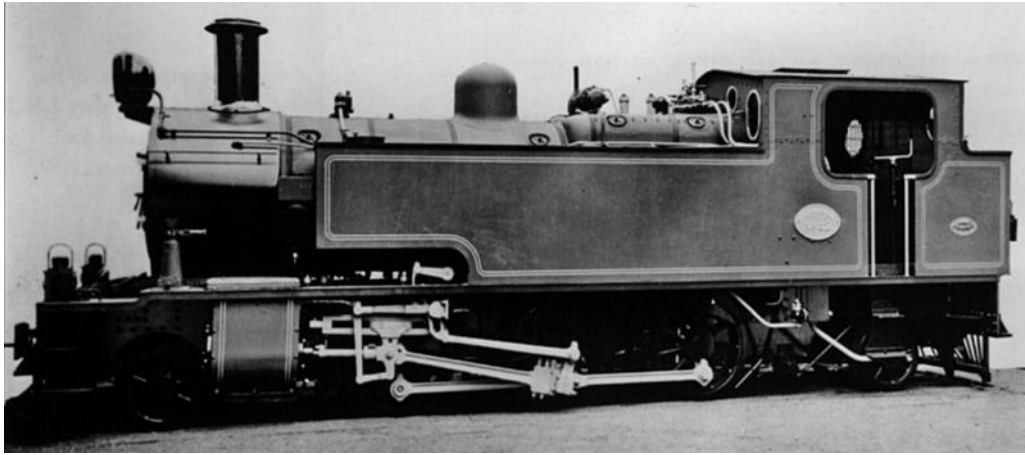
The 1936 *Supplement to the World Survey of Foreign Railways* gives the number of locos on this railway as eleven including three rack engines.

2-6-2T d/w 43", cyls. 15x22", built by Bagnall in 1947 but not delivered

Ordered via Fox & Mayo consulting engineers and technically owned by Securities Agency Ltd., a London finance house Oil-fired and to be fitted with Le Chatelier and Heberlein brakes, but the photo in [19] (see below) shows no sign of the latter having been fitted. Not delivered owing to non-payment, and then modified slightly and sold to Nigerian Railways as their nos. **41** and **42**. NB The running numbers shown below were apparently in the Bolivar Railway sequence [19], that company by then owning this line. However, that in itself is a puzzle, as the Bolivar 2' 0" gauge system is only recorded as having had locos numbered up to 17 and possibly a couple of later engines unidentified. It prompts speculation as to whether all of these 3' 6" locos had been renumbered in the 20 to 30 series.

31 w/n 2849

32 w/n 2850



Bagnall no. **32** seen ready for the delivery that never happened. Note the total lack of any cab-top or chimney top Heberlein brake cables or pulleys.

10.2.4 *El FC El Palito a Palmasola*

El FC del Este

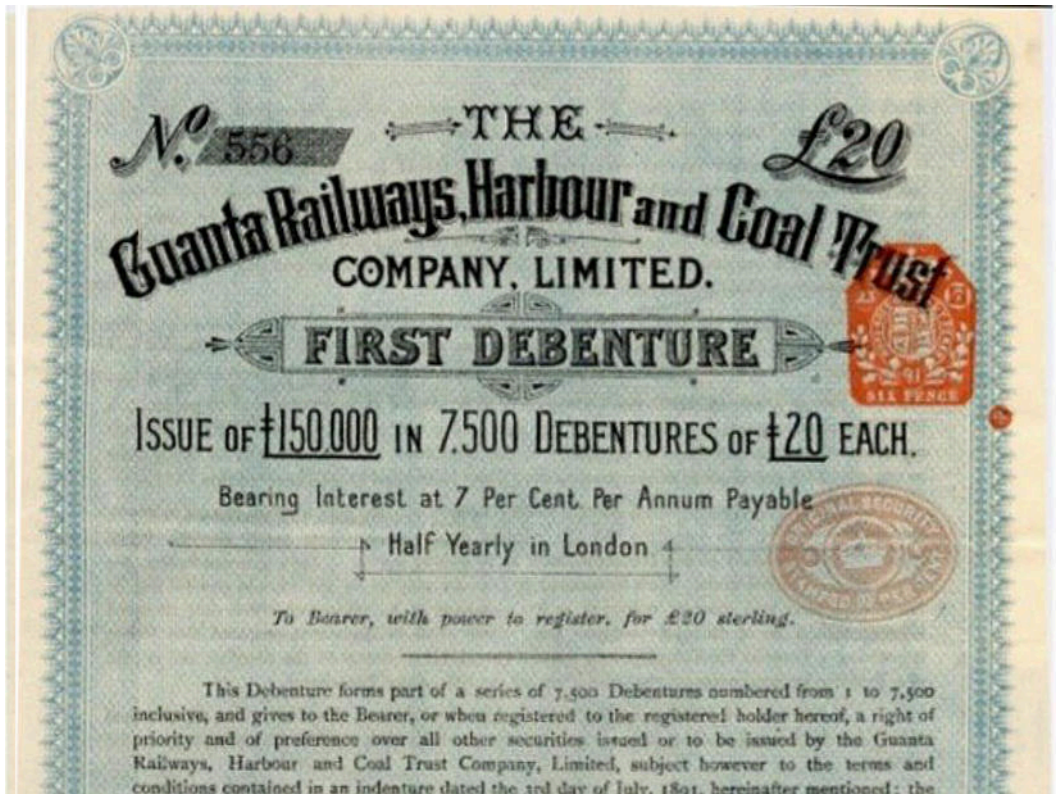
1942-1957

Background

55.4 km. 3' 6" gauge. Palito to Palmasola and Palmasola to San Felipe. Opened 1942, closed 1947? or possibly 1957.

10.2.5 El FC de Guanta a las minas de Carbón de Naricual

1892-1936?



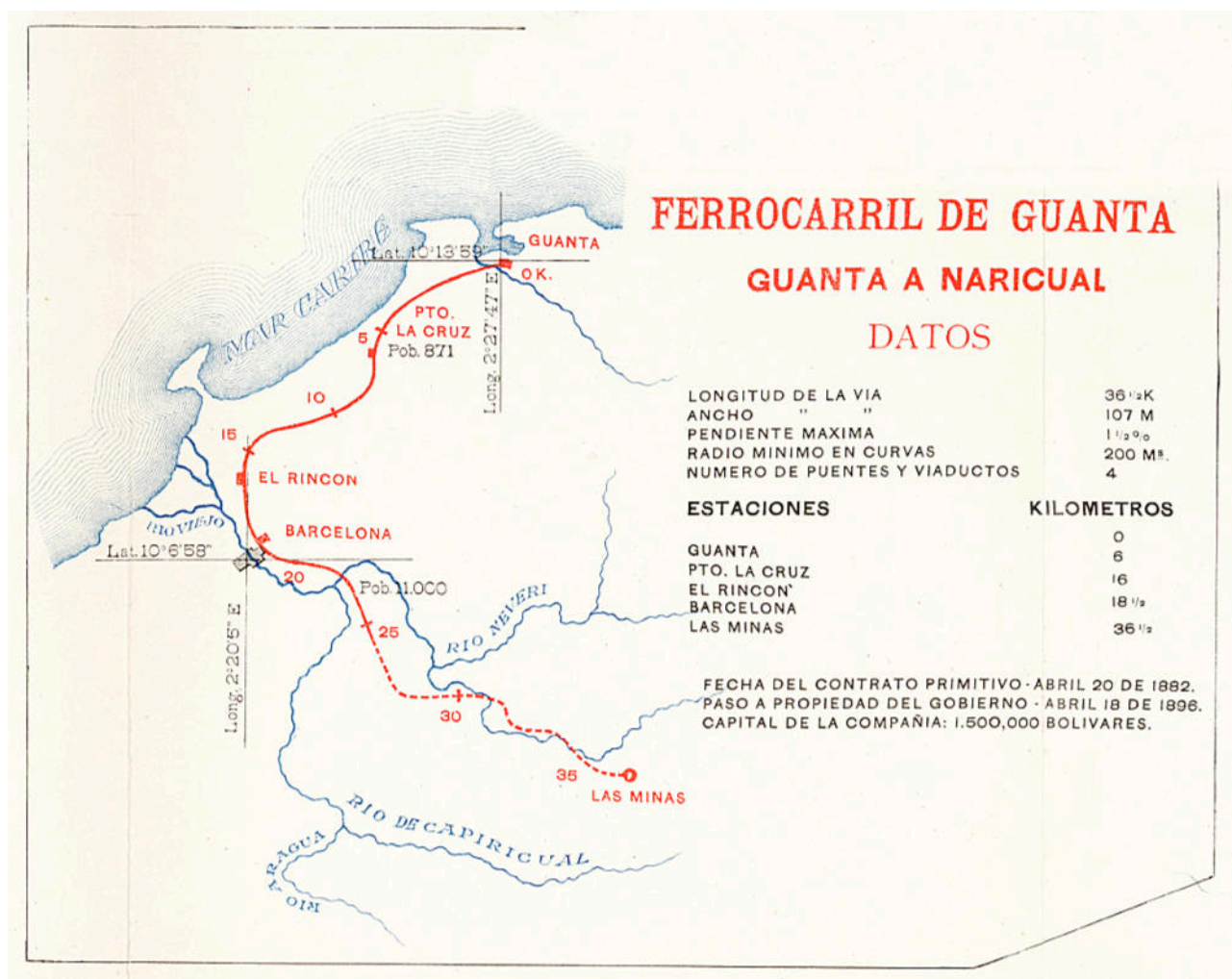
Background

3' 6" gauge; may well later have been defined as 1075mm rather than the more usual 1067mm. "The initial contract to serve the Naricual mines was held by the representation of the *Société Civile de Corte Femme*, which on April 20, 1882, as successor to the *Société Francaise des Houillères du Neveri*, acquired the rights to build a railway from Naricual and with extensions to Capiricual and Tocoporo. A new contract dated November 27, 1885, established that the main railway would consist of several sections, such as the one from the port of Guanta to Barcelona, with a length of 18.70 kilometers, and from Barcelona to Naricual, 12 kilometers. The work - Jesús Antonio Aguilera points out - began in November 1886. On June 15, 1889 the Barcelona line to the Naricual mines was put into service."

36.4 km. *Empresa Nacional de Minas de Carbón, Ferrocarril y Muelle de Guanta*, or *FC Guanta Barcelona*, or *FC Guanta, Barcelona y Naricual*. Owned by *Min. de Obras Públicas*.

In 1914 an extension to San Mateo was under consideration.

Closed 1936? Later regauged to standard.



0-4-0T d/w 27", cyls. 7x12", built by Black Hawthorn in 1887

Ordered via Edward Matthews for the Barcelona and Neveri Railway, Venezuela. It seems likely that one of these two locos was named '**ROMA**' as the 1986 MOP memoria gives that name to a small 8 tonne engine. An 1898 report quoted below also refers to '**NARICUAL**' as a small 10 tonne engine so it may have been one of these.

? w/n 924
? w/n 925



The probability is that this small saddle tank engine seen at the Puente Las Peñas

between Barcelona and Naricual was one of the railway's original Black Hawthorns.

The photo was from the 1910 MOP memoria.

0-6-0T, d/w 1.01m, cyls. ?, built by Cail in 1888

Ordered for the *Houilleres du Neveri*. 'Houilleres' is the French equivalent of the English word 'collieries'. Note that the 1896 memoria clearly states that there were four of these Cail engines, but that only three can be identified in the Cail list. The names probably included '**MARACAIBO**', '**MÉRIDA**' and '**TOVAR**', see below.

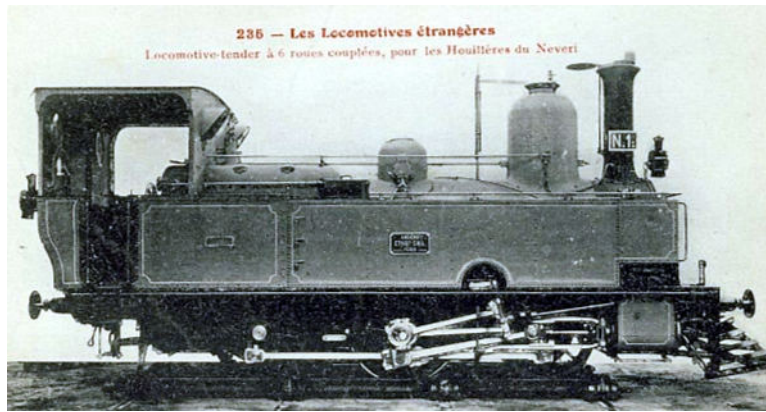
? w/n 2267

? w/n 2268

? w/n 2269

One of these engines bore the number **1** in a builder's photo, see below, but the picture that follows shows the number **4** on the chimney plate.





The fleet in 1896

The MOP annual memoria for 1897 [16, 1897 pp274-304] contains a very comprehensive inventory of the railway's equipment, which includes the following:

Materiales en el nuevo Taller

4 máquinas de 3 pares de ruedas acopladas de 1^{ra} OI,^{ca} Fábrica de Cail, 3 de ellas en estado de trabajo, y 1 en reparación.

2 Locomotoras de dos pares de ruedas acopladas, diámetro 2' 3" fábrica Blak Harvthorn & Co, una en estado de servicio. Otra desarmada, en reparación.

Una máquina fija, 16 caballos de vapor, de doble cilindro, Multi-tubular.—Fábrica Marshall & Sons, en buen estado.

Una Locómovil de 10 caballos de vapor.—Fabricante, Bollin & Louve, en buen estado

The fleet in 1897

The 1898 MOP memoria [16, 1898, p207] reported that “*El material rodante, aunque de buena calidad, no se encuentra en buen estado: las máquinas, á más de un general aseo exigen reponer algunas piezas que como los tubos de las calderas, amenazan á cada paso accidentes desagradables y aun desgraciados ; dichos repuestos no existen en el almacén de la Empresa y creo de urgente necesidad proveerse de los más indispensables.—Los vagones de pasajeros tambien requieren aseo y ligeras reparaciones ; las de carga, aunque no en estado perfecto, prestarán buen servicio durante algún tiempo más, conservándolos á poco costo.—Hay tres máquinas disponibles para el tráfico, las tres restantes estala almacenadas por falta de repuestos ; diez wagones de pasajeros, cuatro de primera clase y seis de segunda ; dos vagones reservados; tres furgones, seis wagones de carga; diez jaulas ; seis plataformas y setenta y cinco vagones de carbón ; material suficiente para el tráfico actual.*”

P243 says:

Es necesario :

1º Reparar las 6 locomotoras reponiendo los tubos de caldera, hornallas, cajas de ceniza, parillas, torneear las ruedas, ajustes &., &.

A bit further on, page 249, it reported:

Locomotoras.

Existen cuatro, de sus ruedas conectadas, fábrica Cail & C^a, París.

Todas estas máquinas se encuentran fatales.

Cada locomotora necesita las siguientes reparaciones:

Juego completo de tubos, por que los que no están condenados á la fecha, están ya tan delgados que dentro de poco no servirán.

Caja de fuego, planchas de cobre y parrillas.

Chumaceras, cobre de las barras de cimexión de lado.

Composición de ruedas, accesorios de calderas, bombas, cilindros y válvulas.

Caja de ceniza, depósito de carbón y chimenea.

Frenos y reparaciones menores.

Las cuatro locomotoras cuesta componerlas veinte y seis mil bolívares (B 26.000).

Además, existen dos locomotoras de cuatro ruedas conectadas, fábrica Black Hawthorne & C^a, Inglaterra.

Estas locomotoras costaría componerlas cuatro mil bolívares (B 4.000).

An 1898 report

“Las locomotoras hacen el servicio por las constantes reparaciones que se le practicar; pero al fin estas mismas resultarán inútiles por los deterioros constantes de las máquinas, moviéndose sobre una línea férrea en muy malas condiciones ; y mucho más pronto quedarán fuera de servicio, cuando ésto se haga activo por el sistema de explotación que propone. Aun con el tráfico actual tan limitado, y sin mayor peso por carga, las máquinas que posee la Empresa quedarán fuera de servicio si no se proveen de nuevas calderas y otros repuestos, ó al menos que se aumente el personal del taller de reparaciones á fin de componerlas lo mejor posible. Es increíble el capital que se ha gastado en la composición de las locomotoras. Los egresos por esto respecto han sido suficientes para comprar máquinas nuevas, quizás en cantidad doble de las que pasee la Empresa.

Se puede calcular un presupuesto de B25.000 para la reparación de las tres máquinas que tiene actualmente la Empresa en servicio. Y para el final del primer año de explotación, proveerla de dos nuevas locomotoras por la suma de 13 50.009.

Para el sistema de explotación que propongo, y para la composición de las locomotoras se hace indispensable la montura de algunas máquinas, y reparación de otras, que están en el taller de reparaciones...” [4]

Also as follows:

Material rodante.—Las locomotoras número 2 y número 3 están constantemente en reparación para ponerlas en servicio. Es increíble que estas máquinas, según su estado, hagan el tráfico. La número 4 que estaba desechada por inútil ha sido compuesta, y en este mes comenzó á hacer el servicio con ventaja sobre las otras, por ser su caldera de mejores condiciones. “La Narienal” está en reparación y en tráfico. Es necesario tomar serias medidas para reponer las locomotoras, por lo menos ponerles calderas nuevas. Hay exposición con las que están en uso. Algunos wagones han sido pintados y arreglados en el presente mes.

Whilst this paragraph identifies engines numbered **2, 3** and **4**, it also names '**La NARICUAL**'. This is interesting for until now the only mention of that name was for the loco that arrived from Caracas (see below) around 1914.

A few pages further on: *“Material rodante.— Cuando el ciudadano Armando Rolando se hizo cargo de la Gerencia de esta Empresa, solo estaban en servicio y en un estado muy malo, malísimo, las locomotoras numero 2 y número 3. De tal modo así, que con frecuencia se descomponían en el trafico, y habia necesidad de enviar otra máquina (cuando estaba útil) para traerla, o mandar el mecánico al lugar de la linea á componer dicha máquina. El primer interes que se tomo la Gerencia fue la composicion de las locomotoras. – Las maquinas numero 2 y numero 3 constantemente estan en reparacián y en servicio. Estas máquinas, como las demas, debían estar desechadas por el mal estado do todas. La número 1 está apartada por inservible. La numero 4 estaba desechada por inútil, pero á grandes esfuerzos, y por tener la caldera en mejores condiciones que las otras, se llevó al taller de reparaciones para hacerle una buena composición que la pasiera en servicio. Se buscaron las piezas de esa maquina que estaban botadas por inutil, se acopiaron otras nuevas, y hoy, esa locomotora numero 4 esta en servicio, con ventaja de las numero 2 y 3. La máquina “Naricual” de 10 toneladas estaba desechada por inutil. Se le hizo una buena reparación, y ha sido útil para el tráfico á las minas, conduccion de ballasto a la línea, El estlado de todas las máquinas es pésimo por demas ; y de allí las fuertes erogaciones que ocasiona el taller por la composicion de dichas máquinas. Ni un solo dia deja de trabajar en ellas para que siempre estén en servicio. – Actualmente están en reparación las locomotoras numero 2 y numero 3 y la pequeña “Naricual.” Se han pedido á Europa por la casa de los señores Boccardo & Ca., de Carácas, repuestos para los juegos de las máquinas ; pero aún asi es de suma necesidad ponerles nuevas calderas, pues las que tienen las Locomotoras no son otra cosa que una sucesion de remiendos, con peligro de una explosión.*

Los wagones, coches, carros, etc., estaban indecentes. Los asientos de los de 1 clase estaban rotos, faltaban vidrios en algunas puertas, espejos, lamparas, estribos, etc., algunos se llovian. Todos los wagones y coches han sido reparados: estos últimos se han pintada de nuevo y se siguen pintando. Se le puso nueva esterilla á los asientos de los wagones de 1a. clase. Los trollys han sido reparados.”

And on p328: *“Las locomotoras hacen el servicio por las constantes reparaciones que se le hacen : pero al fin estas mismas resaltaran inútiles por los deterioros continuos de las maquinas, moviendose sobre una linea en pesimas condiciones, y mucho mas pronto quedarían fuera do servicio cuando éste se haga activo por el sistema de explotación que propongo. Aún con el trafico actual tan limitado, y sin mayor peso por carga, las máquinas que pose la Empresa quedarán inservibles si no se proveen de nuevas piezas o repuestos que es de urgente necesidad pedir á Europa. Ya se han encargado algunos, pero no son suficientes. Do ese modo podrán durar algún tiempo, mientras la Empresa se encuentre en condiciones de encargar nuevas máquinas.”*

Further references to the repairs necessary on the locomotives were to be found on pages 334 and 336, and on page 188 of the 1899 memoria.

Loco names in 1910

The 1910 MOP memoria states that there were three engines ‘sistema francés’ at the time, named ‘**MARACAIBO**’, ‘**MÉRIDA**’ and ‘**TOVAR**’ [16 1910 pd296 p116]. These were almost certainly three Cail 0-6-0Ts, but might just possibly have included one of the early Black Hawthorn 0-4-0STs.

The fleet in 1911

From the 1911 memoria [16 1911 pd458 p146]: *EL MATERIAL RODANTE Compuesto de tres locomotoras, dos coches de primera, dos de segunda, dos furgones, seis wagones de carga, 16 para carbon, 5 plataformas, un coche reservado de primera, uno mixto construido recientemente, otro para el servicio, todos son revisados y reparados las veces que son de necesidad. Tenemos ademas varios coches, wagones de carga, plataformas y wagones de carbon que nos ocupamos en repararlos a medida que las circunstancias to permiten.*

Las locomotoras existentes están todas en muy mal estado, debido al mal cuido o la poca atención que han tenido en epocas anteriores, al punto que solo marchan debido a la atencien en que vivimos ocupandonos actualmente. Ultima-

mente he hecho fundir los bronce, cajas, etc., los que estamos arreglando para colocarlos a las referidas locomotoras y conseguir así alguna duración más de ellas. En vista del mal estado de las calderas, he procedido a solicitar una que, de conseguirla, será montada a la locomotora "**Roma**." Interestingly, '**ROMA**' was not mentioned in the 1910 paragraph, so it definitely seems as though one of the Black Hawthorns was still in service at around that time.

1914 memoria

A table in the 1914 memoria shows this line as having three locos [16 1914 pd514 p104a]. However, on another page this volume reports: "**Locomotora Naricual**. Es este el nombre con que hoy se distingue la locomotora donada generosamente a esta empresa por el Benemérito General J. V. Gómez, quien atento siempre a todo movimiento de progreso que tienda al mejoramiento de los pueblos de nuestra Patria, ordenó fuera comprada a la Compañía del Gran Ferrocarril de Venezuela. A no dudarlo, es esta la adquisición más importante de la Empresa en el año, pues siendo su estado de conservación del todo bueno, asegura de una manera definitiva la regularidad en el tráfico a que ha sido destinada; agregándose a esto su gran potencia de arrastre que proporciona la manera de que haga diariamente por completo el transporte a Guanta tanto de la carga como del carbón lo que evita el tener que correr diariamente dos trenes como se venía acostumbrando; y sobre todo que ella ha venido a permitir que otra de las dos locomotoras restantes sea dedicada al arrastre exclusivo de los trenes con carbón de las Minas a Barcelona." [7]

"Con respecto a los otros departamentos del ferrocarril, todos ellos se resienten de la estricta economía que priva en la administración de la Empresa. Así, aunque ella dispone de cuatro locomotoras, nombradas: "**Naricual**", de 32 toneladas; "**Simón Bolívar**" y "**Barcelona**", de 20 toneladas cada una, y "**Roma**", de 8 toneladas, sólo la primera es nueva y está siempre en perfecto estado de servicio; las dos siguientes necesitan importantes reparaciones con mucha frecuencia, y la última una reconstitución casi completa, que se practica actualmente. La locomotora "**Naricual**", única que está hoy en servicio, hace el tráfico entre Barcelona y Guante, y es capaz de arrastrar hasta cien toneladas de carga útil, con un consumo de 900 kilogramos de carbón en viaje redondo entre los dos sitios nombrados."

"Sin embargo, de lo expuesto me esfuerso porque no suceda así, y al efecto me he dado a la penosa tarea de reconstruir la locomotora "**Simón Bolívar**", de 35 años de servicio, la cual se repara toda ella, habiendo suplido el Ministerio de Obras Públicas parte de los materiales que se necesitan para esta obra y costeando la Empresa los gastos de salarios, etc. "

"Departamento de Locomotoras.—En vista de las necesidades del tráfico establecí un tren de comercio diario entre las Estaciones terminales. y otro, diario también, de recogida en la línea, sacando uno más extraordinario cuando el caso lo requiere. Para establecer mejor la responsabilidad entre maquinistas y fogoneros, doté a cada máquina de sus correspondientes empleados. Ilago constar que al establecerse el tráfico hasta El Vigía se necesitará de una o dos locomotoras más, pues las existentes, fabricadas por el año de 1890, aunque de muy buen material, es preciso hacerles continuas reparaciones para que puedan abastecer al actual servicio."

2-6-2T d/w?, cyls. ?, built by Dübs or Nasmyth Wilson in ?

This was a *GFV* loco transferred to the Guanta Naricual railway around 1914 as described above. This needs further examination to pin its identity down precisely, though it was probably one of the pair of Nasmyth Wilson 2-6-2Ts that originated on the *FC Caracas Antimano*. As one of them named '**CARACAS**' seems to have joined its sister here later, it is likely that the first one to arrive was that which had originally been designated '**ANTIMANO**', ie. Nasmyth Wilson no. 297.

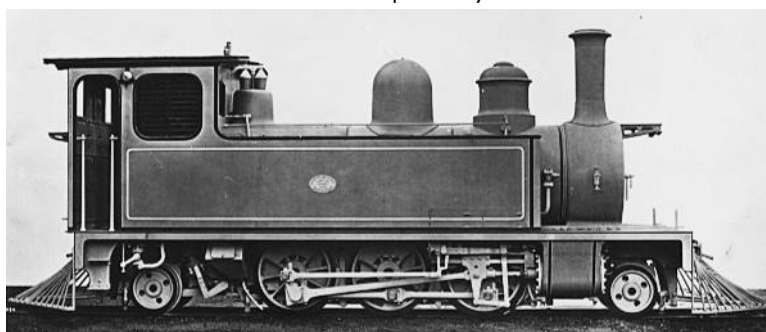
'**NARICUAL**'

w/n 297

Ex *GFV* no. 2 '**ANTIMANO**'.



Note the addition of side buffers for compatibility with other stock on this railway.



This Nasmyth Wilson builders' photo shows one of the pair of 2-6-2Ts for the FCCA.

It is at least possible that the previous image shows one of this pair.

1916 and 1917 memorias

The 1916 volume says that: *Han sido colocadas nuevas zapatas a la locomotora 'Barcelona'*, whilst the 1917 memoria mentions that the locos **'SIMON BOLIVAR'**, **'NARICUAL'** and **'BARCELONA'** had been repaired, and that the last had received new *zapatas*, presumably brake shoes.

Although the following accidents were relatively minor, the reporting of them in the 1916 memoria gives the loco name, and so is copied here: *También ocurrieron dos descarrilamientos, sin mayores consecuencias, en el mes de noviembre último, ambos de la locomotora "Simón Bolívar": uno en la recta de Mallorquín, y otro en la curva del arroyo de San Felipe; el segundo, debido a la colisión del tren con una res que se hallaba en la línea del ferrocarril y que fué muerta por la locomotora.* [16 1916A pd208 p104].

1918 memoria

"Con respecto a los otros departamentos del ferrocarril, todos ellos se resienten de la estricta economía que priva en la administración de la Empresa. Así, aunque ella dispone de cuatro locomotoras, nombradas: "Naricual", de 32 toneladas; "Simon Bolívar" y "Barcelona", de 20 toneladas cada una, y "Roma", de 8 toneladas, solo la primera es nueva y esta siempre en perfecto estado de servicio: las dos siguientes necesitan importantes reparaciones con mucha frecuencia, y la última una reconstitución completa, que se practica actualmente. La locomotora "Naricual", única que está hoy en servicio, hace el tráfico entre Barcelona y Guanta, y es capaz de arrastrar hasta cien toneladas de carga útil, con un consumo de 900 kilogramos de carbón en viaje redondo entre los dos sitios nombrados." [10]

1919 and 1920 memorias

A loco **'CARACAS'** is mentioned, of 32 tonnes weight. It is possible that this was Nasmyth Wilson 296 of 1885, ex

Gran FC de Venezuela ex FC Caracas Antimano. That 2-6-2T bore the name ‘**CARACAS**’ in its earlier lives, and if it later arrived here that would begin to make sense of the statement below that the railway in 1925 had three old engines from the GFV.

“El restallado inmediato de estas mejoras ha sido que las locomotoras "Caracas" y "Naricual" suben hasta el extremo de la linea en Naricual arriba, lo que no habla sucedido desde In construcción dela via, pues las locomotoras que hacian el tráfico eran de 21 toneladas, y los ultimos kilómetros estaban tan abandonados que hasta se pensó levantar los rieles para utilizarlos en reparaciones de otras secciones. -

Las mejoras en el material rodante, han sido: la locomotora “Naricual,” que el año pasado se desarmó completamente, se refaccionó y puso en servicio, que presta regularmente, aunque le hace mucha falta unas llantas nuevas para las ruedas motoras; ”

“Se supone que una producción de 500 toneladas diarias saldrá por 5 ó 10 boca-Minas situadas en toda la región desde Mallorquín hasta Naricual Arriba y para trasportarlas se dividirá el tráfico en 2 secciones; de las Minas a Barcelona, o el sitio próximo, donde se instalen la planta eléctrica motriz procedente de Imataca y la planta de fabricar panelas de carbón; y de allí a Guanta. En ambas secciones los trenes deben constar de 20 wagones de carbón, que las locomotoras actuales son capaces de arrastrar de las Minas a Barcelona, pero no de Barcelona a Guanta. De manera que se necesitan 2 locomotoras nuevas de 30 a 32 toneladas, con potencia bastante para arrastrar eli la subida de Pozuelos 20 wagones de carbón que pesarán unas 200 toneladas brutas. En cuanto a wagones el servicio exigirá en cualquier momento: 20 en Guanta, 20 en viaje de Guanta a Barcelona o vice-versa, 20 en viaje de las Minas a Barcelona o vice-versa, 40 en las Minas recibiendo carbón y 20 de reserva y para transporte de madera, etc, etc. Como hay 46 wagones, se han pedido 80 más. El itinerario comprendería 5 viajes redondos de Barcelona a Guanta y 5 de Barcelona a las Minas. La forma más conveniente' para estos viajes sería utilizar 2 locomotoras cada día y dejar descansando las otras 2, pero como entonces las estadias en las Estaciones terminales serian muy cortas, se tendrian en Guanta y las Minas 2 locomotoras pequeñas de 8 a 10 toneladas, para las maniobras, que serian: la locomotora "Imataca" después de reformada y adaptada al ancho de esta vía, y la "Roma" después de reconstruida, para lo cual he acopiado todos los materiales. Bajo estas ideas se procedió a calcular los demás elementos, como durmientes, rieles, cambios, etc. y se formulo el siguiente presupuesto aproximado: Presupuesto del capital necesario para poner al Ferrocarril de Guanta a Naricual en condiciones de servicio para trasportar 15.000 toneladas de carbón mensuales. 2 locomotoras nuevas, de 32 toneladas, propias para arrastrar, subiendo, 200 toneladas en pendiente del 2 y medio por ciento, para vía de 1,07 de trocha con radio mínimo de 60 metros B 140.000”

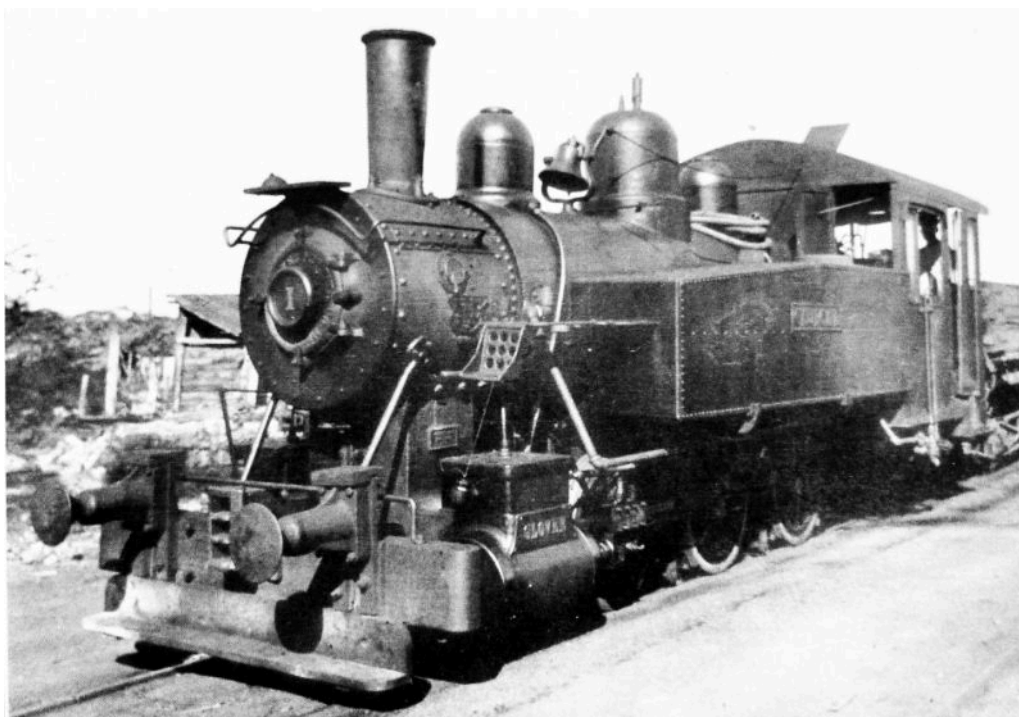
0-6-0T d/w ?, cyls. 13x18", built by Glover Machine Works in 1920

Ordered via Kunhardt & Co. for export through J. M. Motley. Built to 42" gauge. Numbered **1** and **2**.

1 ‘CAJIGAL’ w/n 131815

2 ‘ANZOÁTEGUI’ w/n 131816

The names have been allocated above purely on the preposition that the loco illustrated below is numbered **1** and its name-plate is long enough to bear the letters ‘CAJIGAL’ but not long enough for ‘ANZOÁTEGUI’.



This is certainly a Glover Machine Works engine, and the side buffers tend to support the supposition that it ran on this railway. There is a substantial nameplate on the tank side but the name is not legible.

?-?-?T? d/w ?, cyls. ?, built by ? in ?

Probably ordered for Canadian Venezuela Ore Co. at Imataca in eastern Venezuela. Originally of 75cm gauge, re-gauged when purchased with other equipment for re-use at Naricual around 1920.

‘IMATACA’

w/n ?

1921 memoria

*“Las mejoras del material rodante han sido: reforma de la pequeña locomotora **"Imataca"** procedente de las minas de este nombre, primitivamente construida para vía de 0.m75 de ancho y adaptada, después de resueltos los consiguientes problemas mecánicos, a nuestra vía de 1,m07. Esta locomotora pesa 8 1/2 toneladas y fué dedicada al servicio de maniobras y embarques del puerto de Guanta, que efectúa a satisfacción. Los embarques en especial los ha facilitado grandemente, pues entra sobre el Muelle por una curva de 20 metros de radio, últimamente construida para este efecto. La reconstrucción de la locomotora **"Neveri"** de 81/2 toneladas de peso, formada con los materiales de las antiguas locomotoras **"Neveri"** y **"Roma"**. Esta se ha destinado a maniobras de servicio auxiliar de las minas para trasportar carbón de distintas procedencias, ya a la Estación de "Las Peñas" o bien a la de "Mallorquín", con el objeto de evitar las maniobras en cortos trayectos y con pequeñas cargas, que antes hacian las locomotoras grandes con evidente detrimento del rendimiento económico. ”*

1922 memoria

A loco ‘ANZOATEGUI’ is mentioned as working well, solely the injectors causing difficulty. Then in April 1921 there is mention of the ‘other’ new engine now in use, named ‘CAJIGAL’.

“Las dos locomotoras fueron pedidas para arrastrar 20 vagones en una pendiente de 2%% subiendo. Sus especificaciones técnicas son: Diámetro interior de los cilindros 13".

Carrera del émbolo 18".

Diámetro de la caldera 40".

Número de los tubos 88.

Diámetro de los tubos 2".

Largo de los tubos 12 pies.

Superficie de calefacción 602.84 pies cuadrados.

Superficie de la parrilla 10,86 pies cuadrados.

Presión máxima del vapor 180 libras.

Peso de la locomotora, lista para trabajar, 32 toneladas.

Fuerza de tracción 14.103 libras.

Depósito de carbón para 1.500 libras.

Depósito de agua para 1.000 galones.

2 Inyectores del tipo "Monitor" No. 5.

Tonelaje remolcado: a nivel 2.138 toneladas, en pendiente de 2%'267 toneladas.

...

El material rodante se aumentó con las dos locomotoras y los 60 vagones nuevos, y como se han conservado reparadas las locomotoras y vagones antiguos, se dispone hoy de las locomotoras de tráfico "Anzoátegui", "Cajigal", "Caracas" y "Naricual" de 32 toneladas, las de maniobra "Neveri" e "Imataca" de 8% toneladas; la locomotora "Simón Bolívar" de 21 toneladas está en mal estado, pero puede repararse con facilidad; en cuanto a la "Barcelona" de 20 toneladas está desarmada para hacerle una seria reparación en la caldera."

Documento Núm. 429

Telégrafo Nacional.—De Barcelona a Caracas, el 8 de marzo de 1921.—Las 5 hs. p. m.

Señor Doctor Luis Vélez, Ministro de Obras Públicas.

Pláceme comunicarle que la locomotora nueva venida de Norte América y bautizada con el nombre de "Anzoátegui" acaba de hacer su primer viaje de Barcelona a Guanta arrastrando 12 vagones de carbón, sin ninguna novedad. La prueba de máxima potencia de arrastre se verificará la próxima semana.

Dios y Federación,

PEDRO GONZÁLEZ. E.

Documento Núm. 434

Telégrafo Nacional.—De Barcelona a Caracas, el 21 de marzo de 1921.—Las 6 hs. p. m.

Señor Doctor Luis Vélez, Ministro de Obras Públicas.

Recibido.—Estoy listo para recibir los once (11) bultos locomotora y los 20 bultos vagones. La locomotora Anzoátegui continúa trabajando bien, solamente los inyectores son de difícil manejo. Rúegole exigirle a los vendedores indicaciones a este respecto.

Dios y Federación,

PEDRO GONZÁLEZ E.

Documento Núm. 439

Telégrafo Nacional.—De Barcelona a Caracas, el 27 de abril de 1921.—Las 6-hs. p. m.

Señor Doctor Luis Vélez, Ministro de Obras Públicas.

Cúmpleme participarle que la otra locomotora nueva venida de Norte América y bautizada con el nombre de "Cajigal", acaba de hacer su primer viaje de Barcelona a Guanta, arrastrando más de 100 toneladas, sin ninguna novedad. La prueba de máxima potencia de arrastre se verificará próximamente.

Dios y Federación.

J. H. RODRÍGUEZ LANGE.

US report 1925

This says seven locos in fleet, of which three were "old ones purchased from German 'Great Venezuelan Railroad Co.', whilst two others are 32 ton engines purchased by government a short time ago". In fact we have eight engines listed above, though of course one might have been withdrawn by the mid-1920s. We also have six names, though not

all have been matched to individual engines.

2-6-2T d/w38", cyls.12x18", built by Baldwin in 1934

Ordered via Govt. of Venezuela for *FC de Guanta a Barcelona*. BLW class 10-18 1/4D no. 51. Spec. is in vol. 79, p 682.

13 'PRESIDENTE GOMEZ'

w/n 61821



1936 total

The 1936 *Supplement to the World Survey of Foreign Railways* gives the number of locos on this railway as three.

10.3 Metre gauge public railways

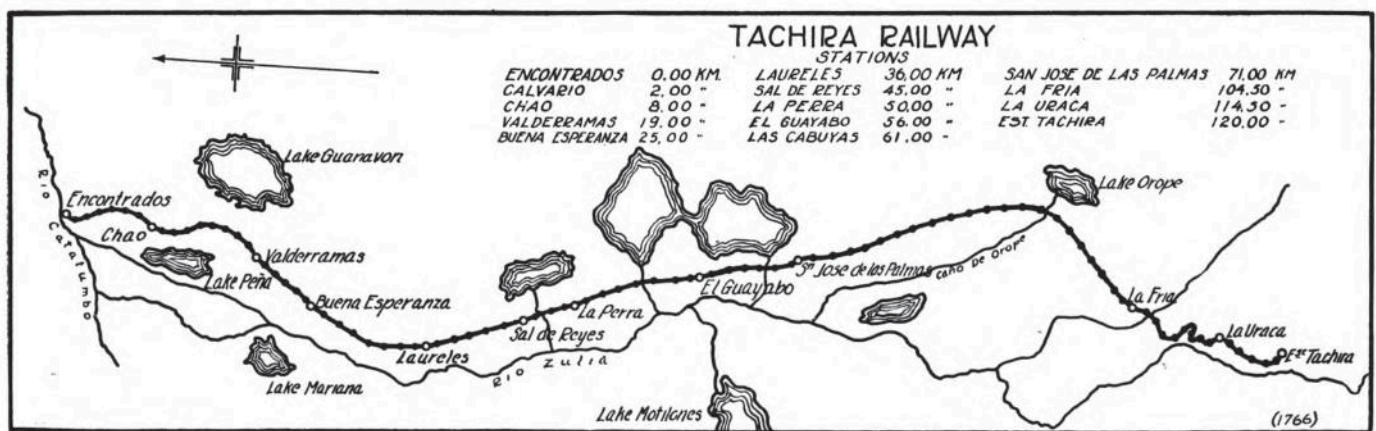
10.3.1 *El Gran FC del Tachira*

1892-1966

Background

Metre gauge. 178.9 km. in total. Dates from 1884 govt. contract with Manuel Tejera for construction. However, no progress was made, so in 1892 the government made a new contract with the Roncayolo brothers. Sections opened were 1895 Encontrados to La Fria, 1898 La Fria to Uraca, 1913 Uraca to Tachira, and 1926 Orope to Bocagrita. All closed 1966. Most of the route ran across low and flat ground, with only the extension from La Fria to Tachira climbing up to 370.6 metres above sea level.

In 1913 a concession had been granted to extend to San Cristóbal and on to the port of Periquera, but it is not known whether these lengths were opened.



0-6-0STT d/w 33", cyls. 11x16", built by Baldwin in 1894 (1-2), 1895 (3-4), 1894? (5) and 1904 (6-7)

Ordered via Kunhardt & Co. for *FC del Tachira*, last one ordered via Suzarte & Whitney for same. Nos. **2-7** were BLW class 06-16D nos. 34, 41(42?), 44, 47. 60 and 61. Specs. are in vols. 19 p 178 and 27 p7. The running numbers were probably only allocated later. Saddle tank 600 gals., tender tank 1100 gals. Marks on tanks specified on spec. sheets are hard to read but the first line reads: 'COMPAÑÍA ANÓNIMA DEL GRAN FERROCARRIL DEL TACHIRA', the third line reads 'COMPAÑÍA ANÓNIMA DEL FERROCARRIL DEL TACHIRA' and middle line very strangely "GRAN FERROCARRIL DE LA CEIBA'. It looks as though Baldwin had got rather mixed up when this engine (06-16D no. 47) was ordered, as the 3' 0" gauge equivalents for the La Ceiba railway had their spec. on the following page, ie. vol. 19 p179.

- | | | |
|--------------------------|-----------|---|
| 1 'TÁCHIRA' | w/n 14010 | 06-16D 30, trial steaming 8 th May 1894, despatch 28 th May 1894, cost \$4533.75. In construction service that November. Complete rebuild in 1917. Mentioned in 1948 and 1956 <i>GFT</i> inventories [3]. |
| 2? 'ZULIA' | w/n 14151 | 06-16D 34, trial steaming 3 rd Nov 1894, despatched 6 th Dec 1894, cost \$5100. Substantial overhaul 1917, including a retube and turning of the wheels. |
| 3? 'VENEZUELA' | w/n 14467 | 06-16D 42, trial steaming 7 th Oct 1895, despatched 17 th Nov 1895, cost \$5225. |
| 4 'SAN CRISTOBAL' | w/n 14607 | 06-16D 44, trial steaming 26 th Dec 1895, despatched 29 th Feb 1896. Mentioned in 1948 <i>GFT</i> inventory [3]. |
| 5 'RONCAYOLO' | w/n 14945 | 06-16D 47. In 1916: <i>La locomotora "Roncayolo", que cuenta con 20 años de servicio, fué materialmente reconstruida, dotándola de caldera y demás</i> |

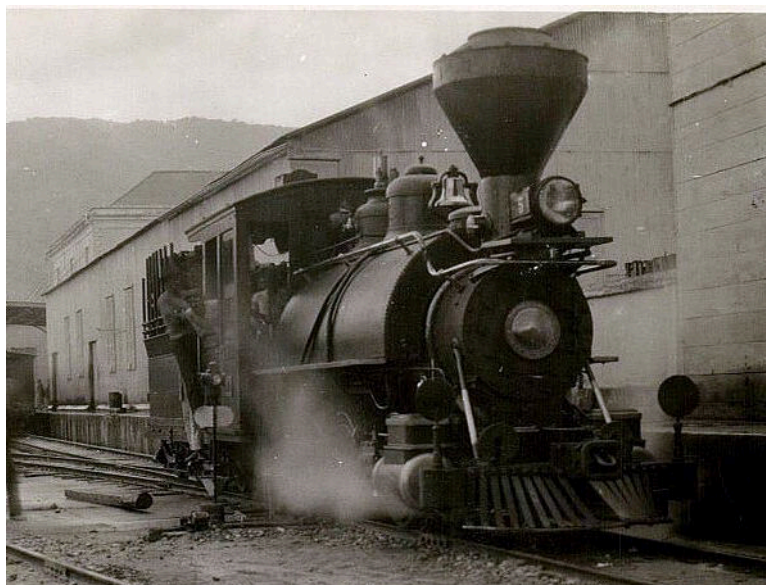
6 'TÁRIBA'

partes esenciales nuevas. [16 1916A pd196 p096].

w/n 20125 06-16D 60. Mentioned in 1948 *GFT* inventory [3].

7 'PADRE BLANCO'

w/n 24067 06-16D 61, trial steaming 8th April 1904, despatched 15th April 1904, cost \$5850. Mentioned in 1948 *GFT* inventory [3] as under repair.



No. 5 'RONCAYOLO'.



No. 6 'TARIBA'. as pictured in the 1916A MOP memoria.

Locomotive painting styles

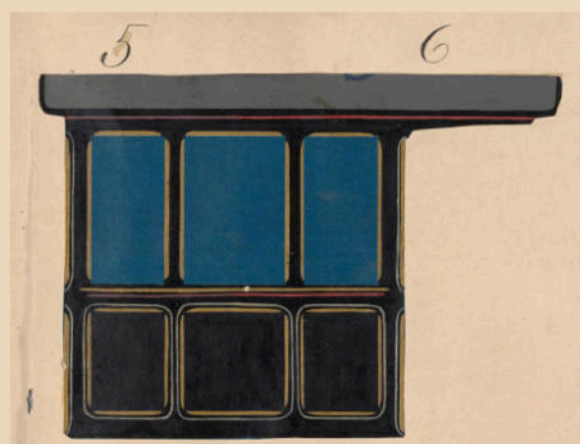
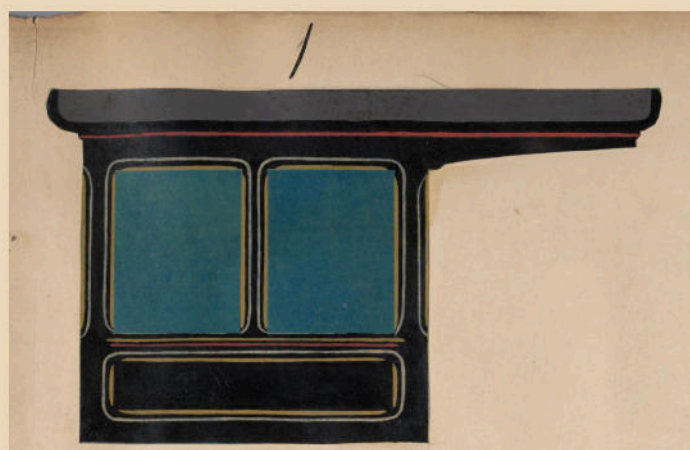
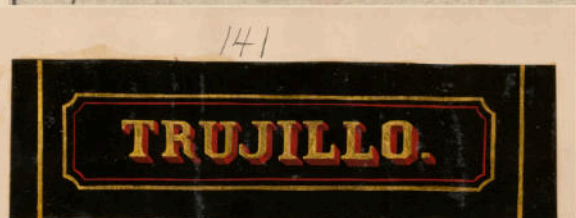
The following images were gathered from the Baldwin style books conserved at Stanford University and available online at <https://purl.stanford.edu/fb584yc9195> and <https://purl.stanford.edu/jw230zc7560>

These were the painting styles in use on the *Gran FC de Tachira*, the *Gran FC de la Ceiba*, and the *Tranvia de Bella-Vista* in 1893-4, when locos **1 'TACHIRA'**, of the former line, **1 'TRUJILLO'** of the La Ceiba route,, and **4 'VENEZUELA'** of the Bella-Vista tramway, were built. The summary lists at the top of the page apply as follows:

Style 272, for the *Gran FC de La Ceiba*,
style 273 for the *Tranvia de Bella-Vista*,
and style 274 for the *Gran FC de Tachira*.

By following along those lines, the particular styles for cabs, tanks, sand-boxes, driving wheels and tenders can be identified.

<i>Style</i>	<i>Cab.</i>	<i>Cylinder</i>	<i>Tank</i> <i>ON</i> <i>Boiler</i>	<i>Sand</i> <i>Box</i>	<i>Dril.</i>	<i>Tender</i> <i>Tank</i>	
272	6	6	141	19	20	—	10-22 E 14 JULIO F. SORZANO
273	1	6	142	19	20	—	6-14 D 33 JULIO F. SORZANO
274	1	6	142	19	20	143	6-16 D 30 JULIO F. SORZANO



The fleet in 1896

The MOP memoria for 1897 [16, 1897, p344] gives the following information:

Los vehículos que poseía la Empresa al hacer la inspección, eran :

- 3 Locomotoras de seis ruedas acopladas con *tender* separado.
- 1 Coche de pasajeros, de primera clase, que no está en uso por descarrilarse con frecuencia.
- 8 Wagones de carga cubiertos ; y
- 8 » » » descubiertos.

El tráfico que actualmente se hace, adolece de todas las dificultades consiguientes al mal estado de la línea y de los elementos con que cuenta. El combustible usado en las locomotoras, es leña, que por ser depositada á la intemperie, á uno y otro lado de la línea, está á veces muy húmeda siendo esto causa de que se detenga con frecuencia el tren para levantar la presión del vapor en la caldera.

The fleet in 1898

The MOP memoria for 1898 [16. 1898. p277] includes a report from January of that year which lists the locomotives as:

Hoy tiene la línea cinco locomotoras de una fábrica de "Philadelphia, de 20 toneladas, todas en buen estado, que son : "Venezuela," "Táchira," "San Cristóbal," "Zulia," y "Roncajolo."

The fleet in 1914

The 1914 MOP memoria refers to the route between Encontrados and La Uraca being operated by 7 *locomotoras de 3 pares de ruedas acopladas, con sus tenders correspondientes. El peso de estas máquinas es de 20 toneladas en disposición de marcha y 9 toneladas el tender, pudiendo arrastrar hasta 'La Uraca' una carga util de 41.400 kilogramos o sean, seis wagones con 60 cargas de 115 kilogramos cada uno* [16 1914 pd583 p151]. This implies that all seven locos were identical.



This loco seems to have gained an air reservoir though the pump is not visible. It also has lost its Radley & Hunter stack and has gained a replacement wooden cab of slightly different style to the original.

2-6-2T d/w 40", cyls. 14x18", built by Baldwin in 1913

Ordered via Kunhardt & Co. for *FC del Tachira*. BLW class 10-22 1/4 D 49-50. Spec. is in vol 49 p 120. Wood burning stack. Fuel box with rack around top to be located on rear extension of frame back of cab.

8¹ 'ENCONTRADOS'

w/n 40537

Tested 22nd June? 1914 *con resultado satisfactorio* [16 1914 pd568 p144]. Almost certainly sold to the *FC de Cúcuta* next door in Colombia to become their no. **19**.

'TAMALAMEQUE'.

9¹ 'MARACAIBO'¹

w/n 40539

Almost certainly sold to the *FC de Cúcuta* next door in Colombia to become their no. **6³** and retaining the name **'MARACAIBO'**.

Clearly these two locos must have gone by 1924 when the next locos arrived. One report suggests that the sale took place in 1923. However, the cross-border rail link between the Tachira and Cúcuta systems was only completed in 1929, so presumably the transshipment of the locomotives must have been by ship.



The same design of 2-6-2T was to be seen later posing as no. **6** on the *FC de Cúcuta*, with added tender and a different spark arresting stack.

1914 memoria

The *MOP memoria* for 1914 states that there were seven locos in service [16 1914 pd514 p104a]. This was before the arrival of the two second-hand 2-6-2Ts built in 1913.

1915 memoria

"El día 22 fue probada la locomotora - Encontradas" con resultado satisfactorio. Quedan así listas en esta Estación, para entrar oportunamente en servicio, las dos locomotoras de 40 toneladas que la Empresa encargó especialmente para la prolongación." This was the extension to Cara de Perro.

"La Empresa dispone para el servicio de esta sección de dos locomotoras nuevas, de 3 pares de ruedas acopladas y dos ruedas a cada lado de la máquina. Estas locomotoras están provistas de frenos de aire comprimido y pesan 40 toneladas cada una y 45 toneladas en tren de marcha."

1918 memoria

"Los talleres de mecánica y carpintería de la Empresa han atendido incesantemente a la conservación de todos los vehículos. A la locomotora "Tachira" se le hizo una reparación general que puede estimarse como una reconstrucción,

pues se le cambiaron muchas de sus piezas esenciales. A la "Zulia" se le hizo una reparation de alguna consideracion, la cual consistio principalmente en el carnbio total de los tubos de su caldera, en la retorneada de sus ruedas y en el ajuste total de todo su mecanismo.” [10]

1925 data in US report

Nine locos were reported as being in the fleet. This total may have included one or possibly two of those listed immediately below, but this raises the issue of what happened to the first no. **8**, the Baldwin 2-6-2T listed above.

0-6-0STT d/w 33", cyls. 11x16", built by Baldwin in 1924, 1925 and 1928

Ordered for *Gran Ferrocarril del Tachira Cia. Anonima*. Smokebox to have short extension. BLW class 06-16D nos. 76 and 77. Specs. in vol 72 p 86, vol 78 pp 195 and 198, and vol 79 p 185. Boiler to be arranged for burning oil at later date. Train signal connections to be provided at front of engine and back of tender, with air signal in cab (locos **8-10**). Loco to operate over rough track. Tender to have wood cage of eight strips. Mark on cabsides and on side of tender: ‘GRAN FERROCARRIL DEL TACHIRA’. These locos reputedly had a larger boiler than the earlier engines.

8² ‘COLÓN’	w/n 58043	Mentioned in 1948 and 1956 <i>GFT</i> inventories [3].
9² ‘CÚCUTA’	w/n 58327	Mentioned in 1948 and 1956 <i>GFT</i> inventories [3].
10 ‘AMÉRICA’	w/n 59637	Possibly named in honour of the wife of the railway’s superintendent. Survives at Caracas Transport Museum but carrying ‘ MARACAIBO ’ nameplates.
11 ‘MARACAIBO’²	w/n 60610	Mentioned in 1948 <i>GFT</i> inventory [3].
12? ‘La GRITA’?	w/n 60611	Mentioned in 1948 <i>GFT</i> inventory [3], whilst a no. 12 and a ‘ La GRITA ’ are also mentioned separately in the 1956 inventory.



The Baldwin photos above show how no. **11 ‘MARACAIBO’** was fitted with much taller log rails on the tender than no. **8 ‘COLÓN’**. Both had Rushton stacks which were later removed along with those log rails when oil became the fuel.



No. **10** as now preserved in the Caracas Transport Museum but carrying the plates from no. **11 'MARACAIBO'**. Note the extended smokebox. It has been stated [18] that this was not a GFT engine, but this is probably incorrect. These photos are from <http://www.forotrenes.com/foro/viewtopic.php?t=83296>



2-6-0? d/w ?, cyls. ?, built by ? in ?

Ordered for A later history of the railway [18] reports that '**La DOCE**' had a pony truck as well as three driving axles.

12 and known as '**La DOCE**' w/n ? Listed in the 1956 inventory.

0-4-4ST d/w ?, cyls. ?, built by Baldwin in 1928

Ordered for *Gran Ferrocarril del Tachira, Cia. Anonima*. BLW class 8 14 1/3 C no. 61. Spec. is in vol. 79 p 182.

Rear tank 400 gals. Saddle tank 300 gals. Back of cab with fuel space for 1/2 cord of wood and fuel rack around top of tank.

13 'CATATUMBO' w/n 60566 Mentioned in 1948 GFT inventory [3]. Supposedly used as a shunter at Encontrados. Plinthed in Cúcuta on the Colombian side of the border.



No.13 'CATATUMBO' showing its Rushton stack.



The same engine as nowadays plinthed just over the border.



? d/w ?, cyls. ?, built by ? in ?

Ordered for ?

? '??

w/n ?

1936 total

The 1936 *Supplement to the World Survey of Foreign Railways* gives the no. of locos on this railway as ten.

The 1948 inventory mentions a loco 2 'Dr. RONCAJOLO' as out of service [3].

Other loco names

[1] suggests other locos with names '**PALMIRA**' and '**CAMPO ALEGRE**' but these seem to have been diesels. In *GFT* inventories a loco **D2** '**PALMIRA**' was mentioned in 1948, and a loco '**CAMPO ALEGRE**' uniquely running on gas oil was listed in 1956.

10.3.2 *El FC de Santa Barbara a El Vigia*

1909-1954



A poor but nevertheless interesting map of the railway to El Vigia.
The latter location is at the bottom, but Santa Barbara was probably
off the top of this map.

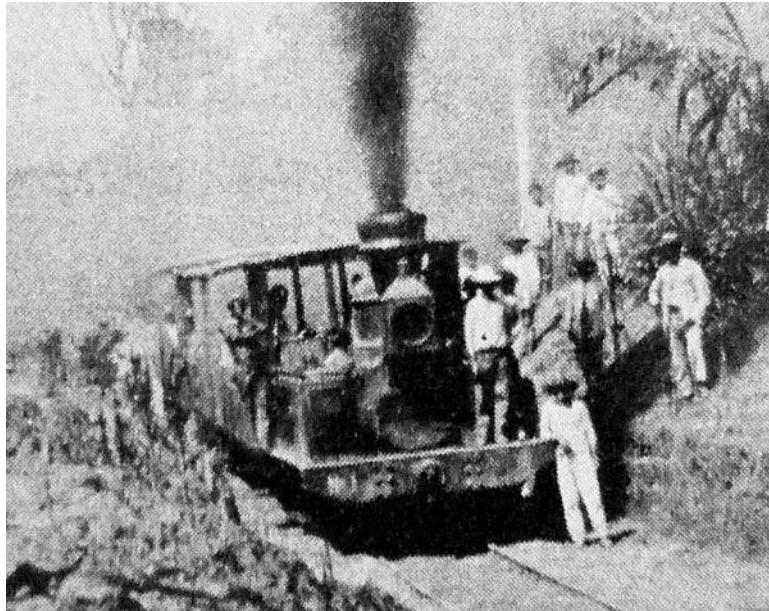
Background

La *Cía Francesa de los FFCC Venezolanos*. 60 km. Built by the Duque de Morny, but taken over by the government in 1892 and operated by them from 1895. Known then as the *FC del Sur*. Originally was to have extended to Merida. Leased to Gral. Anabel Sanchez. Four French locos built by Fives-Lille 1881-9. Two weighed 25 tons and the other two 18 tonnes. All in poor condition 1925. Repair shop at Santa Barbara. Closed 1954.

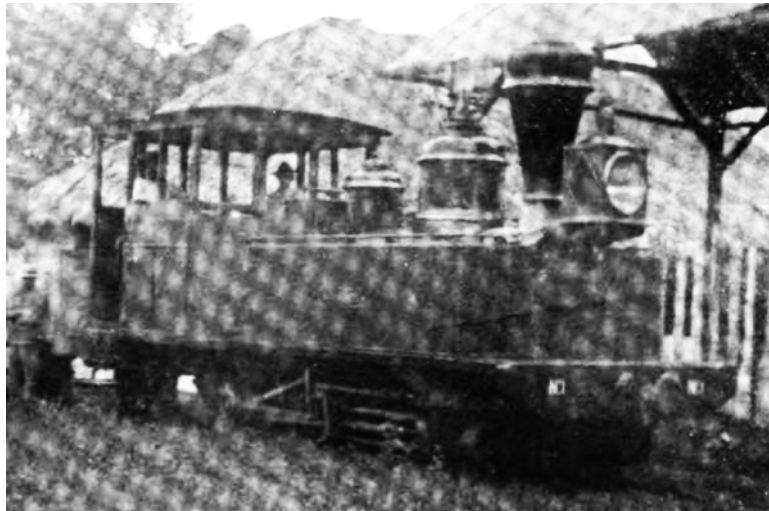
0-6-0T d/w ?, cyls. ?, built by Fives-Lille in 1889

Supposedly ordered by the *Gran FC de Venezuela*. Gauge puzzle: the *Gran FC* was 3' 6" gauge, whilst this is metre gauge!

- | | | |
|---|----------|--|
| 1 | w/n 2743 | 1917 overhaul begun, after a couple of years out of use [9]. |
| 2 | w/n 2744 | |



An unknown loco on the El Vigia route as illustrated in a magazine of the time. This pair of photos have not been confirmed as showing the earliest Fives-Lille 0-6-0Ts but it seems likely.

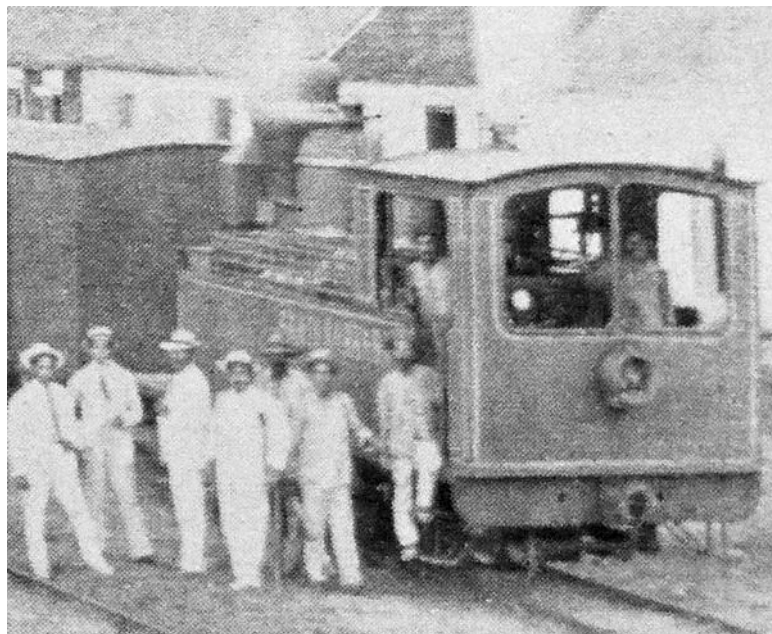
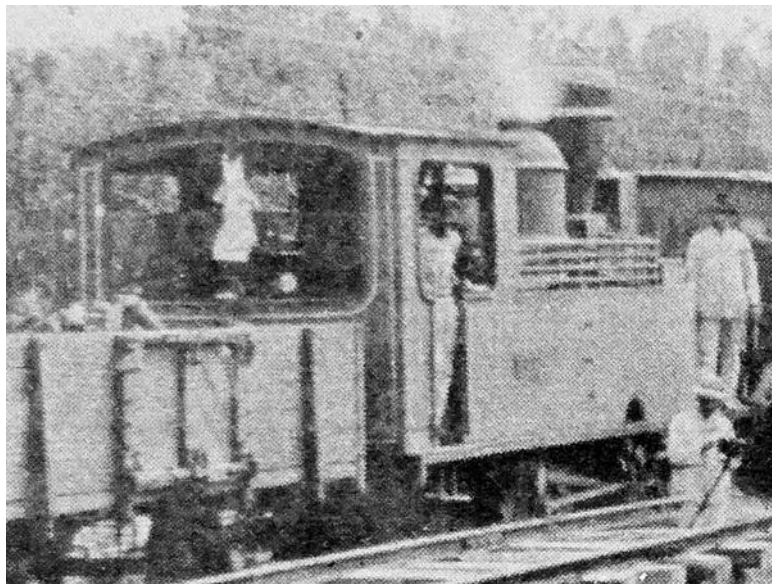


A very similar loco as illustrated in the 1911 *obras públicas memoria* and explicitly captioned as being on this railway.

2-6-0 d/w ?, cyls. ?, built by Fives-Lille in 1891

Ordered for the railway San Carlos a Merida. The Fives-Lille list clearly shows these two as the railway's numbers **4** and **5**, after the originals as numbers **1** and **2**. So what was no. **3**?

4	w/n 2854	1917 complete overhaul had been completed [9]. Weight confirmed as 36 tonnes.
5	w/n 2855	The running no. 5 does not fit into the fleet as known. 3 would be more logical unless there was another loco not yet discovered.



The Words '**SANTA BARBARA**' are painted on the tankside, but whether as an individual loco name or merely to emphasise the identity of the railway is not known.





This one seems to have the name 'LA CORDILLERA' painted on the tank.



An earthquake in 1894

On the 28th April 1894, an earthquake struck the area. Whilst the first 27 km. out of Santa Barbara were unaffected, the remainder of the line was damaged or destroyed in many places. Locomotives **1, 2** and **3** were trapped, as the following report explains: *OBSERVACIONES GENERALES*

*Durante la estadia en " Los Cañitos " del Ingeniero encargado de los trabajos, ha habido despues de la catastrofe en los dias **1, 2 y 3** del presente mes, gran abundancia de agua del rio Chama, que siempre amenaza las partes mas bajas de la linea del kil. 51.*

Los temblores de tierra se sentian continuamente con fuertes trepidaciones de dia y de noche. Todos los dias se sentian caer de la montaña inmediata a la linea arboles mas o menos corpulentos.

A su regreso ayer, tuvo oportunidad de ver la linea entre los kilometros 41.500 y 43, completamente llena de agua y los terraplanes hundiendo en partes.

SITUACION DEL MATERIAL RODANTE ANTES DE LA CATASTROFE

*En " Los Canitos " hay cinco wagones cubiertos, cargados con sal; **la maquina número 1o.** esta en el edificio de las maquinas en la Estación Caño Negro, con un carro de leña.*

Los wagones que componen el tren de arena en Caño Negro, son los siguientes :

Un carro grande de ocho ruedas.,

Dos id pequeños de cuatro ruedas.

ARENOSA

***La maquina número 3º** esta en la linea principal con uu wagon de leña, seis plataformas ordinarias que componen el*

tren que se hacia con tierra de Bubuqui numero 2, entre este punto y Caño Negro.

Entre el puente de Bubuqui número 2 y La Vigia hay dos plataformas ordinarias, dejadas en la parte de arriba del puente para trasportar materiales para el terraplen de la misma parte de dicho puente.

LA VIGIA

En la Estacion hay cuatro wagones cargados con café que contienen 297 sacos, y hay ademas diez vaclos.

MEDIDAS PREVENTIVAS DE CONSERVACION

*Observando el señor Ingeniero encargado de los trabajos, que el importante puente de " Los Cañitos," que une a Santa Barbara con "El Vigía ", esta deteriorado, ha hecho lo necesario para que las piezas de **la maquina número 1 y 2** no se oxiden. Ademas ha dado las órdenes para que se construya un tinglado en " Arenosa " para abrigar la **maquina número 3º**.*

Santa Barbara : 4 de mayo de 1594.

El Director de la Explotacion,

J. A. Brun.

And a flood later the same year

Inspectoría National del Ferrocarril de Santa Barbara a "El Vigia." Santa Barbara: 13 de octubre de 1894.

Ciudadano Ministro de Obras Públicas.

Caracas.

*Pongo en conocimiento de usted que desde el dia 8 del actual se encuentra interrumpido el tratico del ferrocarril que enlaza esta población con la de "El Vigia", y cuya Inspectoría me esta encomendada, a cause de que uno de los caños o brazos del rio Chama [Los Cañitos] se ha desbordado sobre los kilometros 42, 43 y 44, siendo de tanta gravedad los desperfactos causados por el agua, que **la locomotora número 5** se hundió en el ultimo de los kilómetros mencionados. En este accidente me cabe la satisfacción de decir a usted que no hubo desgracias que lamentar.*

El señor Jefe de la Explotacion acompañado del señor Agente tecnico se haya en el lugar de la referenda haciendo los mayores esfuerzos por reparar los males causados por la creciente anunciada; y cree el suscrito, conociendo, cono conoce, la pericia a idoneidad de los Jefes aludidos, que pronto y muy pronto, estara todo arreglado, de lo que oportunamente dare a usted aviso.

Lo que tengo la honra de poner en conocimiento de usted para los fines legales.

Dios y Federacion,

Pedro Castro Alvarez.

The fleet in 1896

The 1897 MOP memoria [16, 1897, p335] includes the following paragraph:

hierro para mercancías.

Material rodante. Es hoy el mismo que poseía la Empresa cuando fué inaugurado el Ferrocarril, solo que, de las tres locomotoras de 17 toneladas, una se perdió sumergida en las aguas de la inundación y las otras dos se hallan en muy malas condiciones. Los coches y wagones - se encuentran en buen estado, en general; algunos de los últimos requieren ligeras reparaciones, y á todos es necesario pintarlos.

The 1898 report

"Conservacion del material rodante. - La conservación del material rodante no se encuentra perfectamente bien: hay que notar lo siguiente:

1o. Maquinas. De las cinco que hay en este ferrocarril una de ellas salio recientemente de gran reparación, y queda tan sólo una para componer el movimiento. Las demas en buen estado. Hay cuatro en servirlo.

2o. Algunas cajas de grasa se calientan.

3o. Las ruedas de la máquina patinan en la marcha cuando esta el tiempo lluvioso o humedo.

Accidentes.— Respecto a accidentes, no ha habido mas que notar que uno, acaccido el 2 de noviembre, en el que un maquinista se fracturó una pierna, debido a un encuentro en una curva con una bestia quo se habia extraviado.” [4]

1899 memoria

Page 255 refers again to five locos, of which four were in service.

1911 and 1914 memorias

In 1914 there was a reference to 18 and 36 tonne locos requiring repair: *Las locomotoras de a 18 toneladas actualmente en servicio, necesitan urgentemente los repuestos a que me referi en mi mencionada representación, como las de treinta y seis, las reparaciones para poder ponerlas al servicio del publico como lo requieren con urgencia las exigencias del mayor trafico.*

The MOP memoria for the year 1914 includes mention of two 36 ton locos that had been out of use being rebuilt and into traffic, and of parts and springs being purchased for the small eighteen ton engines. [7] The larger ones were presumably the 2-6-0s, and the smaller the 0-6-0 Fives-Lille machines. A table in the 1914 memoria gives the total number of engines as five [16 1914 pd514 p104a].

“Las dos locomotoras de 36 toneladas que estaban en completo abandono las he reconstruido y puesto al servicio del público, y, para llevar a cabo este gran paso de progreso he tenido que hacer mayores gastos, encargando a New York tuberías y accesorios para las locomotoras con un valor de Es. 11.836,80; cambiar, modificar y reconstruir los puentes y alcantarillas que existen en el trayecto de los 37 kilómetros en explotación; cuidar con esmero de la conservación y seguridad de la vía; colocar 4.895 durmientes; cambiar eclisas, clavos y demás piezas de seguridad de los rieles, y en fin, reforzar la línea en condiciones de poder sostener el peso de las nuevas máquinas. Para las locomotoras pequeñas de 18 toneladas traje del Exterior varios útiles y 102 resortes de suspensión.”

1916 overhauls

LOCOMOTORAS Después de habérsele hecho una completa reparación se puso en servicio la locomotora número 4, de treinta y seis toneladas, y se ha dado principio a la reparación de la número 1, que tiene más de dos años de haber sido retirada del servicio. [16 1916B pd237 p243].

Se atendió a la reparación de las locomotoras, a excepción de una calificada de inservible, por lo cual hoy se cuenta con dos locomotoras de 36 toneladas y dos de 18, siendo así que anteriormente sólo funcionaban dos o tres. Se proveyó a las locomotoras de 36 toneladas de veinte y cuatro juegos de repuestos de resortes y soportes, habiendo alcanzado el valor de éstos a la suma de B 3.930. [16 1916B pd260 p266].

1918 memoria

Mention of four locos, two of 18 tonnes and two of 36 tonnes, all dating from 1890-1. The boilers of the small engines had been repaired, also of one of the larger ones, with the other being in traffic. There was emphasis on the need to get one or two more locos working in order to run a regular service.

1920 memoria

“Departamento de locomotoras. Servidas las cuatro locomotoras existentes con un personal completo para cada una, con sus enseres correspondientes, han venido prestando su servicio con regularidad, a pesar de que apenas únicamente hay tiempo de verificarles las reparaciones necesarias. En las últimas semanas todas ellas se encuentran en servicio diario. Habiendo llegado las llantas para las locomotoras grandes, tanto tiempo esperadas, se va a proceder a cambiarlas. cosa que no se había efectuado ya por haber llegado éstas con dimensiones no exactas al pedido, por lo cual ha habido que retornarlas por dentro y por fuera. Como el servicio de las locomotoras grandes es económico, a ello se debe que los gastos en este ramo hayan sido menores que en el año anterior; pues sólo alcanzó a B37.345.90, a pesar de que, como medida de estímulo, y para el mejor servicio y conservación de ellas, dispuse que los maquinistas y fogoneros ganasen una prima por cada viaje.”

“Material rodante.—No ha llegado a ser nunca de un todo satisfactorio el funcionamiento de las locomotoras en el curso del año, y si han podido mantenerse en el fuerte trabajo a que es preciso someterlas por su número escaso para el actual tráfico, débese ello a la incesante atención que se presta en el taller mecánico a sus reparaciones más indispensables, las cuales hay que ejecutar frecuentemente sin poder impedir por más de cortos días el servicio que prestan estas máquinas. El número de operarios del taller, algo insuficiente, es también causa de estos inconvenientes, debido a que por ello no es posible mantener un depósito en reserva de aquellas piezas que periódicamente es necesario cambiar al material rodante en servicio diario, tales como las chumaceras de bronce de las locomotoras y vagones, y las llantas de las primeras.”

“Santa Bárbara de Zulía: 19 de enero de 1920. Señor J. A. Redondo, Contratista del Ferrocarril de Santa Bárbara a El Vigía. Presente. Cúmpleme rendir hoy a usted cuenta circunstanciada de los trabajos y obras ejecutados en el Taller de Mecánica de este Ferrocarril, en mi carácter de Primer Jefe de dicho establecimiento, durante el año que acaba de finalizar.

Locomotoras.- La máquina Núm. 1 (Maracaibo.) ha sido reparada de pasadores, haciéndosele el cambio de sus respectivas ruedas. Se construyó un nuevo juego de bronce y se hizo una caja receptáculo de ceniza, y se compuso además la guarnición de vaso.

La locomotora Núm. 3 (Mérida,) que desde el año anterior estaba en reparación, fué puesta de nuevo en servicio. Esta máquina tuvo un desperfecto en la caldera poco después de estar en actividad, el cual se rehará convenientemente y hoy se encuentra en perfecto buen estado.

A la locomotora Núm. 4 (La Cordillera,) se le cambiaron las ruedas y se le montaron nuevos Inyectores. Además se construyó para ella un juego de bronce, pernos, pasadores y chavetas a los balancines. También se compusieron los tubos al lu-bricador y guarnición de vaso.

Locomotora Nom. 5 (Santa Bárbara.) Para, esta máquina se construyeron 26 bronces, que son los indispensables. Se le pusieron nuevos resortes, nuevos tornillos a las cuñas de suspensión y se suplementaron ajustándolos a las cajas. Asimismo se le cambiaron tornillos, pasadores, chavetas, envases y alcuzas para aceite.

...

Terminaré este informe significando al señor Contratista la necesidad de adquirir por la Empresa, 2 locomotoras más, para el mejor y eficaz servicio de ella, ya que las 4 existentes, no obstante mis esfuerzos por mantenerlas en el mejor estado de servicio, serán insuficientes para atender con la regularidad debida al tráfico, ya que cada año ha ido aumentando progresivamente. Soy del señor Contratista, su atto. y seguro servidor;

E. OLIVARES P.”

1921 memoria

“Departamento de locomotoras.—Efectuado el cambio de llantas a las locomotoras de 38 toneladas, éstas han venido prestando su servicio con entera regularidad hasta la Estación Los Cairinos, y de este punto hasta El Vigía trafican las de 18 toneladas. Ello se debe a que, por una parte, no se ha creído prudente hacer seguir las locomotoras grandes hasta la Estación terminal a causa de que no presta confianza el estado de los puentes antiguos construidos por la Compañía francesa, a los cuales es necesario cambiarles parte de su maderamen, y también porque se espera construir en mejores condiciones un puente y varias alcantarillas provisionales que fué necesario dejar en el cauce sea del río Chama. Además, efectuado este enlace, se hace más rápido el regreso de los trenes a las respectivas Estaciones. Llegadas también las llantas pedidas para las locomotoras pequeñas, se están colocando a la número 1, trabajo que se hace más laborioso que con el de las grandes, a causa de que entes llantas vinieron con dimensiones mayores a las del pedido. Como no se ha podido efectuar la compra de una nueva locomotora, ha continuado la expectación para el caso posible de que sufrieran una larga reparación dos máquinas a un mismo tiempo, lo cual hasta hoy ha podido evitarse haciendo rápidamente las reparaciones necesarias.”

“Locomotoras.—Me es sumamente satisfactorio comunicarle que las cuatro locomotoras con que cuenta la Empresa que usted tan dignamente dirige, han prestado un servicio activo durante todo el año. En los primeros meses se les cambió a las locomotoras “Santa Barbara” y la “Cordillera” todas sus llantas por nuevas venidas del exterior; a los que hubo que hacerles un trabajo de retornen por venir el diámetro equivocado desde la fábrica, y para hacer este

trabajo hubo que construir un mandril especial. Además de los trabajos de las llantas, fueron provistas de bielas, tornillos, pernos, chavetas, cuñas, collares de excéntricas y tiradores de válvulas de distribución de vapor. La locomotora "**Mérida**" se encuentra actualmente en reparación, cambiándosele sus llantas, que igual a las anteriores mencionadas, vinieron también del exterior con diámetro equivocado, habiendo que suplementarias con una platina de acero, doblada por un aparato especialmente construido para enrollar planchas. También será provista de bronce, tuercas, cuñas, contra-cuñas, collares de excéntricas y tornillos, que serán contruidos en el taller y será puesta nuevamente al servicio en el mes de febrero próximo. La locomotora "**Maracaibo**" está en servicio dedos Callitos a El Vigía, y se espera que la "**Mérida**" sea reparada, para relevarla y entre la "**Maracaibo**" en el taller, para hacerle varias reparaciones, pues desde hace mucho tiempo se encuentra en servicio casi diario. "

"Las máquinas de 18 toneladas son las que hacen trasbordo con las de 38 toneladas. pues estas últimas, hasta tanto no se hagan algunas reparaciones a los puentes de Arenosa, Pedregosa y Bubuquul, no podrán ir directamente hasta la Estación terminal, y por este motivo diariamente se mantiene una locomotora pequeña en El Vigía y es relevada cada 15 días por la otra pequeña, que mientras tanto ha permenecido en el taller en reparación."

"Talleres. — En el de mecánica se ha reparado del todo una caldera que perteneció a la locomotora número 2, la que estaba en estado casi inservible, pero que hoy volverá nuevamente a ser útil a la Empresa, sirviendo para movilizar un motor de 90 caballos de fuerza que se va a montar en el citado taller, con lo cual quedará éste en condiciones de verificar, con la mayor eficacia y economía, todos aquellos trabajos que requiere el buen servicio."

"Locomotoras—A las dos locomotoras grandes se les cambiaron las llantas de acero que tenían por otras nuevas que se pidieron al exterior, se les pusieron nuevos bronce, bielas, válvulas de distribución de vapor, etc., y se les hicieron las reparaciones requeridas para ponerlas en estado de prestar un servicio cónsono con las necesidades del tráfico. Actualmente se le cambian también las llantas a una de las locomotoras pequeñas y se le practican las demás reparaciones del caso, a fin de ponerla en catado de serviciodentro de dos meses. A la otra locomotora de 18 toneladas se ha tenido especial cuidado en mantenerla en el mejor estado posible, siendo la que en la actualidad presta sus servicios entre El Vigía y Los Gañiles. En el curso del año se compraron una docena de llantas de acero para las locomotoras de 18 toneladas por valor de B 3702,15 y cuatro inyectores "Universal" por la suma de B 1.034,15."

1922 memoria

Mention in November 1921 of the need for one or two more locos, to supplement the four currently on the railway.

"Locomotoras.—"**Cordillera No. 4**" y "**Santa Bárbara No. 5**". Estas locomotoras han venido prestando un servicio activo durante todo el año, y sólo han ido al taller por breves días para hacerles ajustes y reparaciones de menor importancia, pues se les habla hecho reparación completa el año anterior. Además, como estas son las que hacen el recorrido en la primera, segunda y tercera secciones de la línea, donde ha venido en aumento el tráfico de línea, más reciben los cargamentos de exportación de las otras dos locomotoras que van a El Vigía, es frecuente el caso de que presten servicio diario las dos, a pesar de que arrastran cada una de veinte a veinticinco vagones de cinco toneladas de carga. "**Mérida No. 3**". A esta locomotora de 18 toneladas se le hizo una reparación general con cambio de llantas, y aunque se puso en servido, hubo que regresada al taller para cambiarle las llantas, pues aunque las que se le hablan colocado eran nuevas, venidas del exterior, no vinieron con las medidas indicadas y el trabajo que se les hizo para adaptarlas no fué suficiente; se le colocaron otras de las viejas mientras se componen las nuevas para volvérselas a poner, trabajo que no se ha hecho, por no ser suficiente el torno con que cuenta el taller. "**Maracaibo No. 1**". Esta locomotora, debido a un servicio forzado, pues no habla como reemplazarla durante el largo tiempo que estuvo en reparación la Mérida, hubo que hacerle un trabajo completo para ponerla en buen servicio como lo está actualmente. Pué, pues ímprobo el trabajo en estas dos locomotoras, pero hoy me es satisfactorio significarle que las cuatro locomotoras están listas para el servicio, y que sólo es me-nester llevarlas al taller para ajustarlas o hacerles reparaciones de poca importancia. Sin embargo, me permito observar que como el servicio de las locomotoras está distribuido de manera que las grandes hacen el recorrido de las primeras tres o cuatro secciones y las pequeñas en las dos o tres últimas. al tratar de hacerle a una locomotora una reparación demorada, la que la suple tiene que hacer un servicio diario obligado, sin que apenas haya tiempo para hacerle ligeras reparaciones, lo que suele motivar dificultades en la marcha, con los retardos consiguientes en el itinerario: "

“Maquinara del taller.—Se montó en el taller y se encuentra en servicio la caldera de la locomotora inutilizada No. 2, contando hoy con tres calderas: esta, de gran potencia, suficiente para mover la maquinaria con que quiera dotarse al taller: máxime si se le adapta el gran motor que actualmente se está montando; esta caldera tiene la ventaja de gastar menos combustible que las dos pequeñas de que se ha venido haciendo uso. También está en servicio la caldera de cinco caballos de que anterior-mente se hacia uso, pues la antigua de diez caballos sólo podrá utilizarse después de una larga reparación. por la cual hace años que no sirve. Últimamente ingresó una calderilla de tres caballos a la que habrá que hacerle alguna reparación, pero que será útil como portátil.”

“Departamento de Locomotoras — Las dos máquinas de 36 toneladas que posee esta Empresa han venido prestando un servicio eficaz durante el año, y sólo por pocos días ha sido preciso llevarlas al Taller para hacerles ajustes y reparaciones de menor importancia. Estas locomotoras son las que verifican actualmente el recorrido en las tres primeras secciones de la vía, en la recogida y trasporte de los frutos de línea recibiendo además, en Los Canitos o Pedregosa, los cargamentos de exportación que traen de El Vigla las otras dos locomotoras de 18 toneladas. A una de estas últimas máquinas se le hizo una reparación general con cambio de dientes nuevas, pero como éstas vinieron del Exterior con un diámetro mayor a las medidas enviadas a la Fábrica, hubo que hacerles un trabajo para adaptarlas al tamaño de las ruedas, cosa que en la práctica no dió buen resultado, por cuya causa fué preciso colocarle otras llantas usadas, dejando para más tarde la total reparación de las nuevas, una vez esté en condiciones el Taller de poder realizar dicho trabajo. A la otra locomotora de 18 toneladas fué necesario también hacerle una reparación completa, para ponerla en piado de prestar un servicio eficiente y seguro, como lo está en la actualidad. ”

*“Departamento de los Talleres.— Con la eficacia acostumbrada se han hecho tanto en el taller de mecánica, como en el de carpintería, todos los trabajos que ha necesitado da Empresa para atender al funcionamiento y buen servicio de ella. En el primero de dichos establecimientos, se les hicieron reparaciones generales a las locomotoras **Maracaibo Núm. 1** y **Mérida Núm. 3**, siendo también objeto de ligeros composiciones, las otras dos locomotoras que posee la Empresa. Todas estas máquinas están hoy en el mejor estado de servicio posible. ”*

2-4-4T d/w 33", cyls. 9x16", built by Baldwin in 1926 and 1937

Ordered for Santa Barbara y El Vigia, FC Nacional de Venezuela. No. **10** ordered via E. H. Pittier and Ministerio de Obras Públicas for FC Santa Barbara a El Vigia. BLW class 10-12 1/4C nos. 4, 5 and 6. Specs. are in vol. 78p 186, and vol. 79 p 172. Tank sides to be inscribed ‘FERROCARRIL NACIONAL DE SANTA BARBARA A EL VIGIA’. Details to be arranged so that loco can be changed later to burn oil fuel. Cab to be made as open as possible. Particular attention to be given to making cab convenient and comfortable for engineer and fireman.

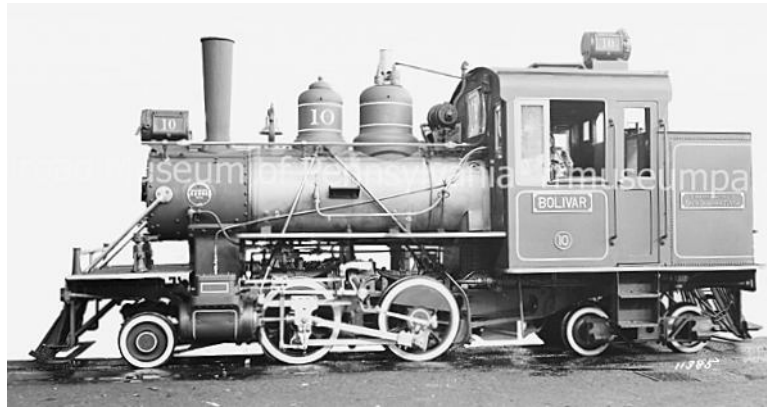
6 ‘TACHIRA’ w/n 58942

7 ‘ZULIA’ w/n 58943

10 ‘BOLIVAR’ w/n 62066

Steam test 5th Feb 1937, despatched 28 May 1937.





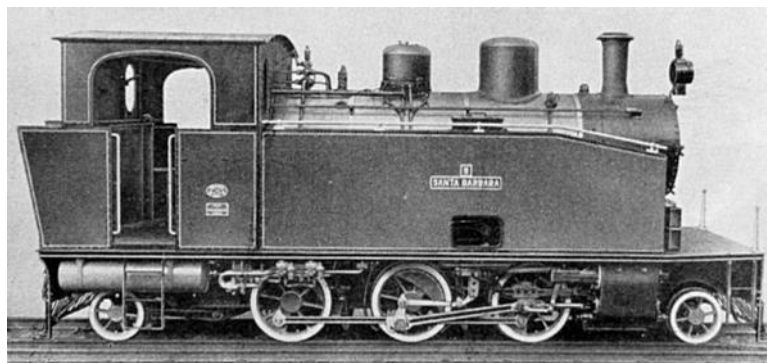
This photo, though of poor quality, shows no. **7** also with a Rushton stack.

2-6-2T d/w ?, cyls. ?, built by Krupp in 1930

Ordered via Schleibach, Thirmer & Co. of Hamburg for the *FC Nacional de Santa Barbara y El Vigia*.

8 'SANTA BARBARA' w/n 1189

9? 'EL VIGÍA' w/n 1190





One of the two Krupp 2-6-2Ts, no. **8 'SANTA BARBARA'**. Photo taken in 1948 at the El Vigia station by professional photographer Avelino Mora.

1936 total

The 1936 *Supplement to the World Survey of Foreign Railways* gives the number of locos on this railway as five. This suggests that almost all of the older engines had been withdrawn by then, leaving only the Baldwin 2-4-4Ts, the Krupp 2-6-2Ts and just one of the Fives-Lilles.

A 1937 press report

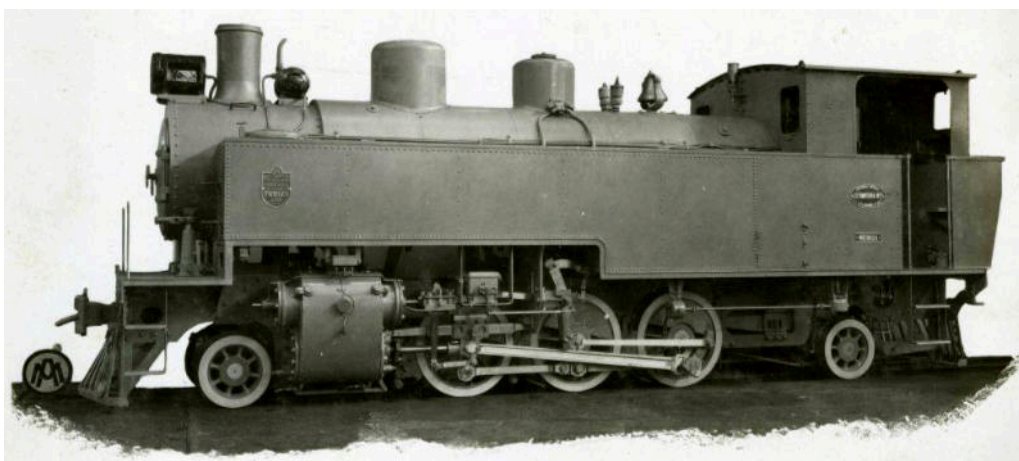
The *Pittsburgh Post-Gazette* of 17th February 1937 reported that Baldwin had received an order for a locomotive from the Santa Barbara Railroad in Venezuela.

2-6-2T d/w ?, cyls. ?, built by Tubize in 1938

ordered for the *FC Nacional de Santa Barbara*, as a follow on to the batch of three for 3' 6" gauge for the *FC Central*.

11 'MERIDA'

w/n 2250

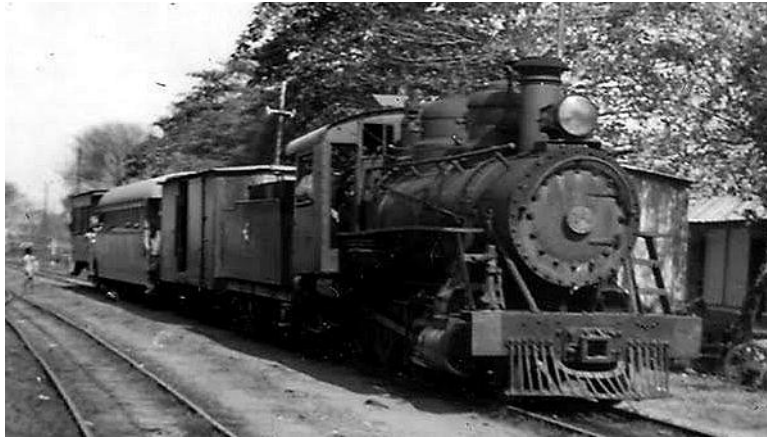




Nos. 8 'SANTA BARBARA' and 11 'MERIDA' at Santa Barbara station.

An unknown tender loco?

The photo below was apparently taken by Sr. Artemio E. Cepeda on this railway during the 1930s. It was captioned as a train arriving at Santa Barbara from Zulia.



A photo from Hector José Bermudez Aponte

Posted on the Facebook page El Vigia de Ayer y de Siempre.



10.4 3' 0" gauge public railways

10.4.1 The New Quabrada Company

1866-1874

For the later 2' 0" gauge Bolivar Railway along the same route see section 10.7.1.

Background

This was the first iteration of what later became the 2' 0" gauge Bolivar Railway. The history is covered in detail in source [23]. The construction began from Tucucas on the coast and proceeded very ineffectually south toward Palmirola. Around eleven miles of route seems to have been completed before the re-organisation and restart under a new company.

Chris West has confirmed from research at Kew that “in July 1863, Samuel John Pittar’s tender to the Quebrada Land Railway and Mining Company was for a railway with “rails laid to a gauge of three feet”. 1863 was very early for a railway as narrow as 3'0”.”

Locomotives

It seems that at least two locomotives had been sent out , and a third(?) had been ordered in 1867 from Edward Parry & Co. of Cannon Street in London. [23] page 37 speculates that the latter might have actually been built on spec by Henry Hughes of Loughborough, and implies that it might well have been an 0-4-0ST.

10.4.2 *El FC La Guaira a Caracas*

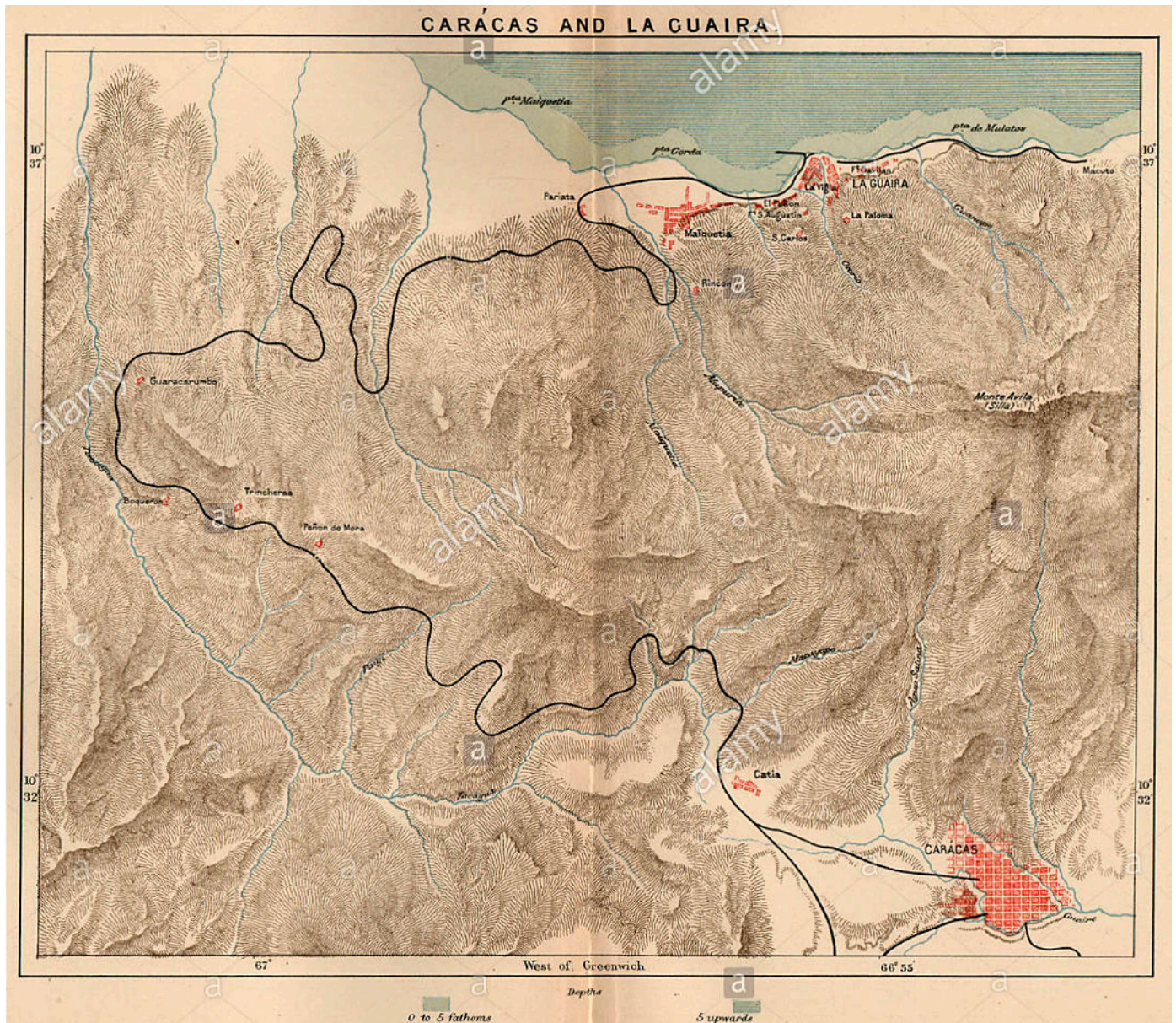
1883-1928 then electrified

Railway closed 1951.

Background

Gauge 3' 0". 36.6 km.

Although Robert Stephenson is supposed to have suggested a railway route from the port of La Guaira to the capital city Caracas as early as the 1820s it took until the 1870s until a concession was awarded. This was in part because the topography was extremely challenging. Although the two termini are only seven miles or so apart, Caracas is at a height of roughly 3000 feet.



The original 1875 concession

Three double Fairlie locomotives built to 3' 0" gauge by Avonside in 1873, including one named '**ESCALADOR DE MONTES**', are rumoured to have come to Venezuela. This story has been repeated many times but no evidence to support it has ever been found. Two out of the three now seem likely to have been sent to Bolivia, where they had very short lives.

CARRUAJERÍA, MÁQUINAS Y PUESTOS FIJOS.

Los contratistas suministrarán y pondrán en la línea las siguientes cantidades de carruajería, y construirán los edificios que se especificarán para guardar ó reparar dicha existencia.

4 locomotoras doble bogie-patente Fairlie.

1 coche de salon, primera clase.

2 coches id.

1 coche compuesto 1ª y 2ª clase.

8 coches de 2ª clase con compartimiento para guarda.

40 wagones cubiertos para mercancías.

20 id abiertos id.

10 id para balastar y materiales.

Todos los coches y wagones provistos de trancas (breaks brakes) de tornillos ú otros que apruebe el ingeniero en jefe de la República.

2 tinglados cada uno para dos locomotoras.

2 id. „ „ „ 8 coches.

1 tienda de reparaciones con máquinas, y utensilios completos para reparar, 2 ingenios, 4 coches y 20 wagones.

Al llegar á La Guaira la carruajería, máquinas, utensilios fijos, los contratistas los colocarán y los pondrán en disposicion de trabajar.

Los contratistas tendrán el derecho de hacer uso de la parte de carruajería que el ingeniero considere necesario para trasporte de los materiales y para los fines del contrato, pero al terminar la línea, los contratistas entregarán al Gobierno toda la carruajería en buen estado.

The contractors will supply and place on the line the following quantities of carriages, and will construct the buildings that will be specified to store or repair said stock.

4 Fairlie double bogie-patent locomotives.

1 saloon car, first class.

2 cars id.

1 composite cocho 1a. and 2a. class.

8 cars of 2a. class with storage compartment.

40 covered freight wagons.

20 open ids

10 id for balastar and materials.

All cars and wagons provided with screw breaks or others approved by the Chief Engineer of the Republic.

2 sheds each for two locomotives.

2 ids 8 cars.

1 repair shop with machines and complete repair tools, 2 devices, 4 cars and 20 wagons.

Upon arrival in La Guaira the carriage, machines, fixed utensils, the contractors will place them and put them in a position to work.

The contractors will have the right to make use of the part of the carriage that the engineer deems necessary to transport the materials and for the purposes of the contract, but upon completion of the line, the contractors will deliver to the Government all the carriage in good condition.

The second concession in the 1880s

Electrified 1928, to government 1950. Workshops at Caracas. Closed 1951?

0-6-0T d/w 38", cyls. 13x19", built by Black Hawthorn in 1881

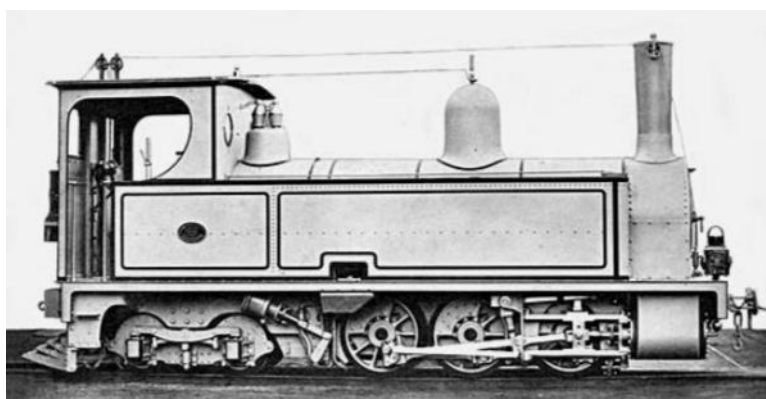
Ordered for La Guaira & Caracas Railway via W. Bailey Hawkins.

? w/n 651

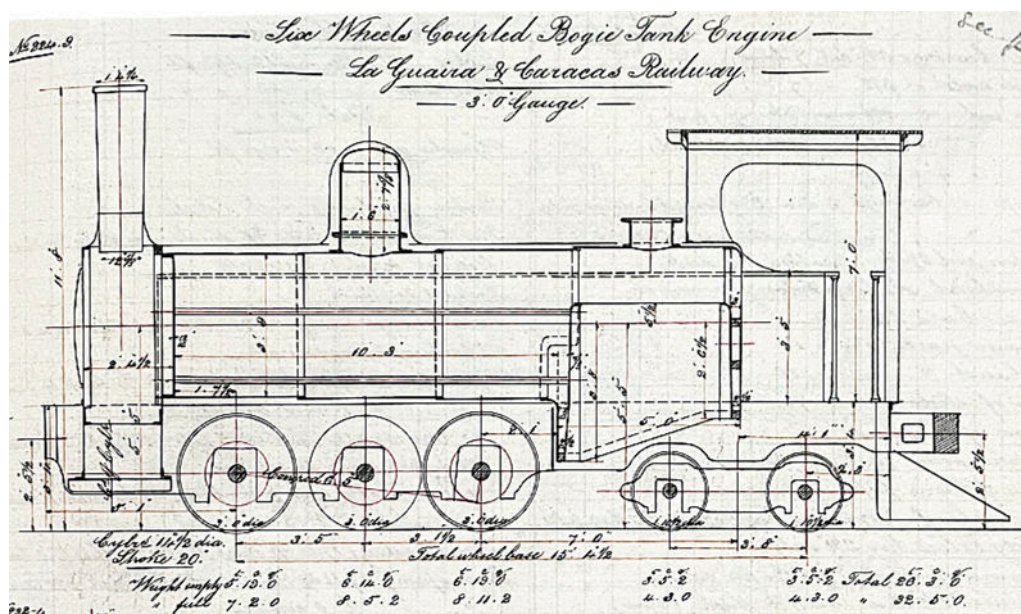
0-6-4T d/w 36", cyls. 14½x20", built by Nasmyth Wilson in 1882 and 1884

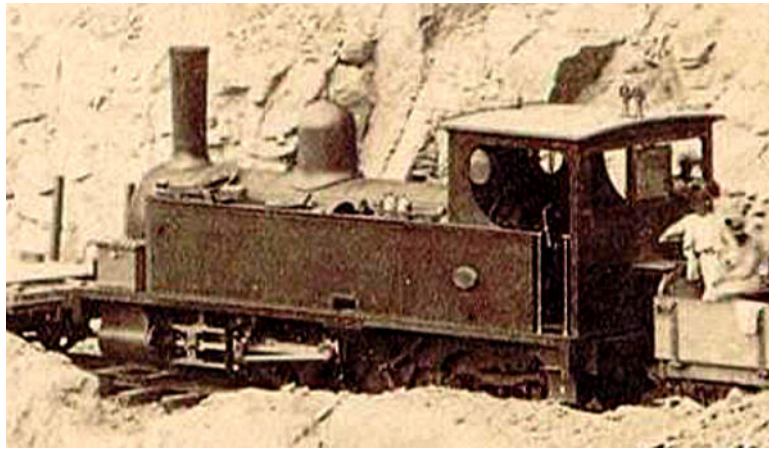
Ordered for La Guaira & Caracas Railway.

1	w/n 224	Supposedly scrapped 1897, but source of info. unknown.
2	w/n 225	Supposedly scrapped 1904, but source of info. unknown.
3	w/n 226	Supposedly scrapped 1912, but source of info. unknown.
4	w/n 227	Rebuilt 1902, possibly scrapped 1930, but source of info. unknown.
5	w/n 228	
6	w/n 229	
7	w/n 285	Rebuilt 1907, possibly scrapped 1935, but source of info. unknown.
8	w/n 286	Rebuilt 1905, but source of info. unknown.

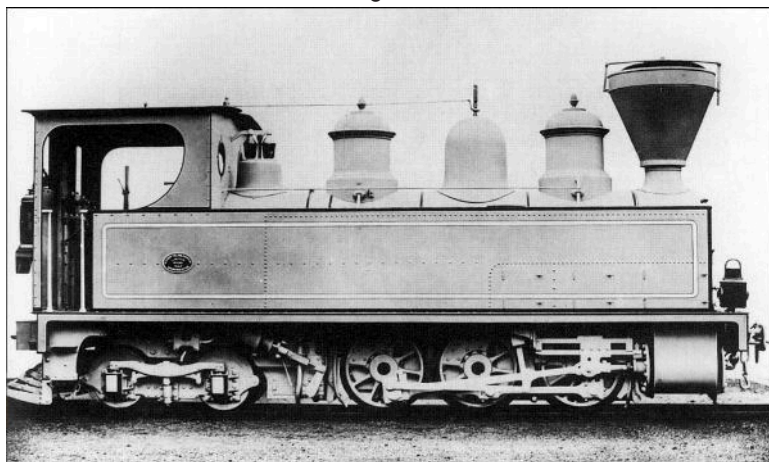


These locos were designed to run cab forward, as is evidenced by the headlight mounted on the cab backsheet, the cow-catcher at the same end of the engine, and the sandbox behind the the 'rear' pair of driving wheels. The cables running from cab roof to chimney suggest that originally this railway's rolling stock was fitted with Heberlein brakes.



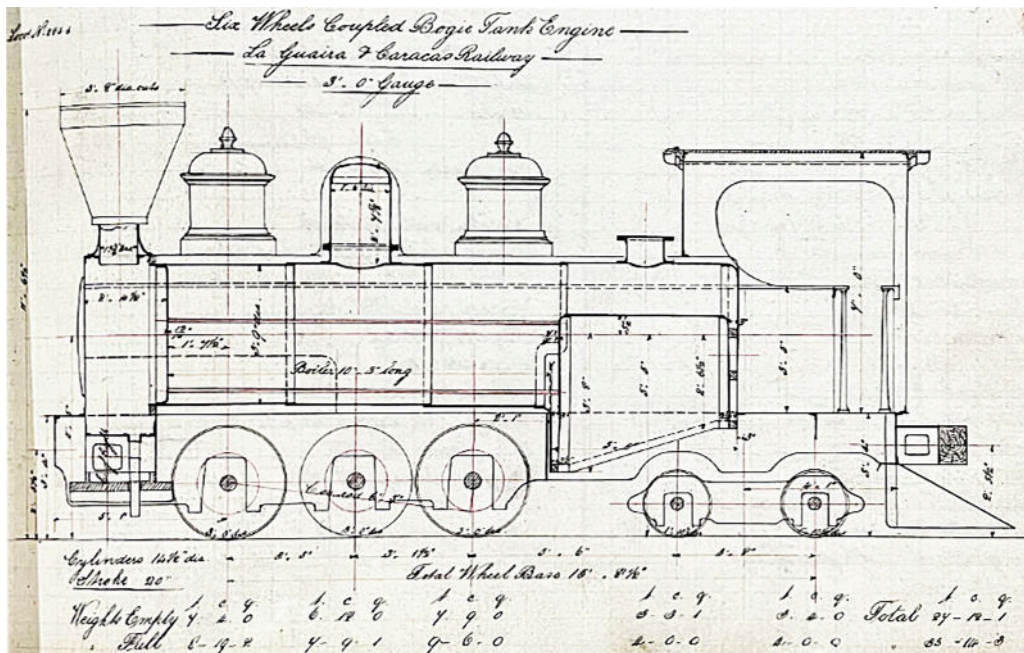


One of the first batch Nasmyth-built 0-6-4Ts on a timber truss viaduct.
As usual the loco is running bunker first. Date unknown.



This second builder's photo illustrates one of the later pair of locos, with longer side tanks, sand domes, and a spark arresting chimney. The Heberlein gear fitted to the first batch of locos is not in evidence. The trailing bogie has been set 4 inches further back on this pair of engines and thus the

cab was was similarly longer.



Comparing the two diagrams above, confirms that the later pair, numbers **7** and **8**, had an additional four inches between the rearmost driving axle and the trailing bogie.



Loco no. **4** showing off its headlight, cow-catcher, and the Heberlein brake cable runners on the cab roof.

Loco mentions in Directors' reports to shareholders

The December 1882 report (actually April 1883) says:

"Of the six locomotives to be sent two have been shipped and the third will be shipped on the 25th instant. The remainder are well in hand and will follow as speedily as possible. The first engine according to the last advices, was running satisfactorily on the line between la Guaira and the Boqueron Pass, a distance of 13 miles, on which part of the Line occur the most severe gradients and curves."

The end of 1885 report then says that on 31st December 1884 there had been six locomotives in service, but a year later there was a total of eight.

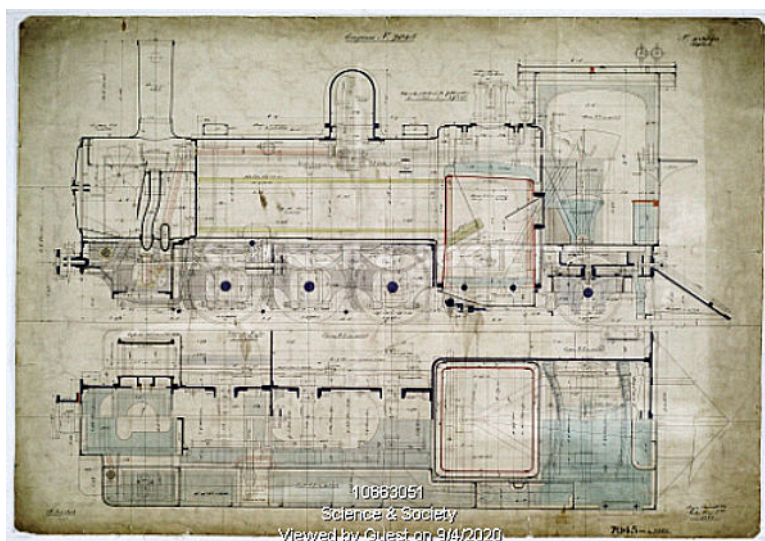
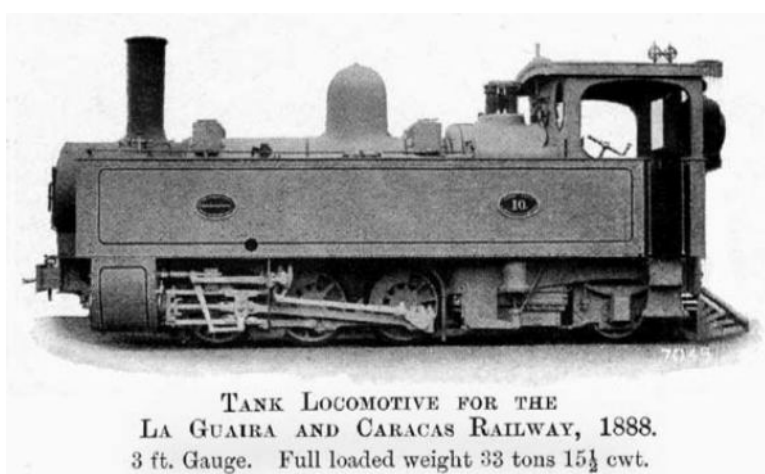
A report to the shareholders in mid-1890 stated:

“The new engines placed on the line shortly before the beginning of 1889 proved a very timely addition to the means of carrying traffic possessed by the Company... and a bit further on: ”...the shipment has begun, and will be continued through the summer and autumn months, of four first class passenger carriages, forty waggons in addition to the fifty-seven the Company already possesses and four locomotives of the new type, increasing the total stock of locomotives from ten to fourteen.”

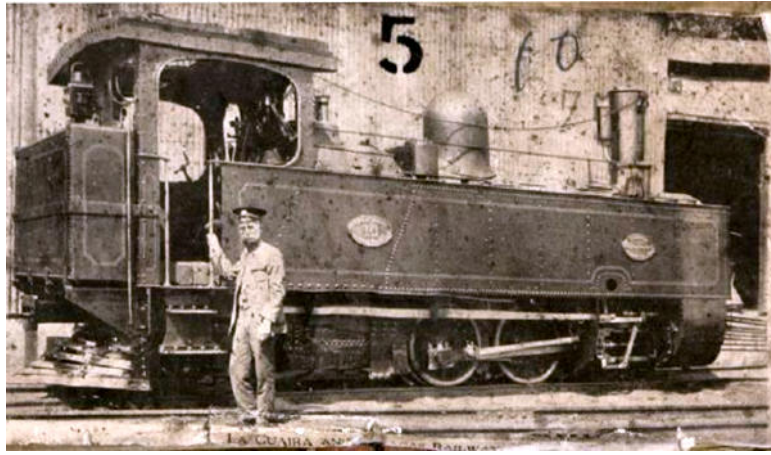
0-6-2T d/w 36?", cyls. 15½x20?", built by Beyer Peacock in 1888 and 1890

Ordered for

9	w/n 2967	Replacement boiler fitted in 1914 [16 1914 pd428 p56]. OoS 1928?
10	w/n 2979	Latterly in shunting service.
11	w/n 3267	OoS 1928?
12	w/n 3268	OoS 1928?



Hi-res copies of this image can be purchased from the Science & Society Picture Library. Their ref 10663051.



Beyer Peacock 0-6-2T no. **10** after conversion to oil-burning, and with the new tank strapped to the rear of the cab. It can also be seen that the cab steps are mounted rather higher than on the builders' photo on the previous page.

No. **15** in the Caracas transport museum also carries a rear-mounted oil tank. However, this engine was one of the later Nasmyth Wilson built batch as listed below.





One of the 0-6-2Ts survives at the Caracas transport museum. This photo is from <http://www.forotrenes.com/foro/viewtopic.php?t=83296>

An accident in 1890

The 1910 MOP memoria, in a discussion about operation on steep gradients, recalls an accident on this railway twenty years before: *El 17 de mayo de 1890 salio de Caracas con destino a la Estacion de Lira un tren de construccion compuesto de la locomotora y de dos carros de carga vacios. Algunos kilometros antes de llegar a su destino, encontró cubierta la via par una inmensa cantidad de langostas (2) que, al ser trituradas por el tren, produjeron el engrasamiento de la superficie de rodamiento de los rieles. Aplicados los frenos por el maquinista, el tren continuo deslizandose, sin obedecer ya a aquellos, adquirio una gran velocidad que se aprecio entonces en 80 kilometros por hora, y se descarrilo luego, estrellandose contra el talud de la via.*

Al tenerse conocimiento en Caracas de lo sucedido, salio otra maquina sola, en auxilio del tren descarrilado, llevando consigo al personal directivo de la Empresa y a algunos mecanicos; mas, a pesar de las precauciones que se tomaron en la marcha de El Encantado hacia adelante para evitar un nuevo conflicto, acontecio a esta locomotora lo mismo que la anterior y, pocos momentos despues, chocaba violentamente contra los carros descarrilados del primer tren. El resultado de esta doble catastrofe fue de tres muertos y quince heridos.

0-6-2T d/w 36", cyls. 15½x20", built by Nasmyth Wilson in 1890 (13-14) and 1891 (15-18)

Ordered for La Guaira & Caracas Railway. It rather looks as though these were built to the Beyer Peacock design seen above, though some careful examination of drawings will be needed to confirm or contradict this.

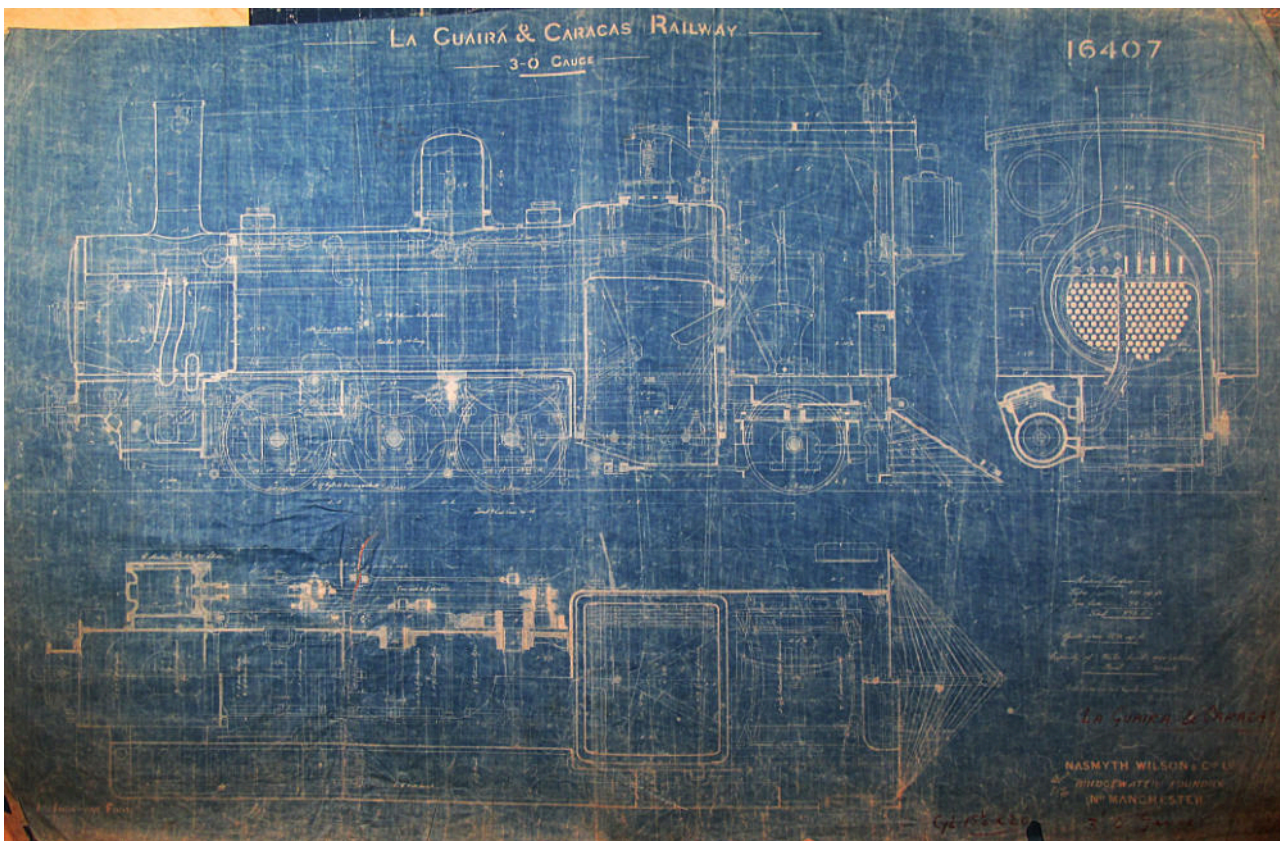
13 w/n 402 Latterly in shunting service.

14 w/n 403 OoS 1928?

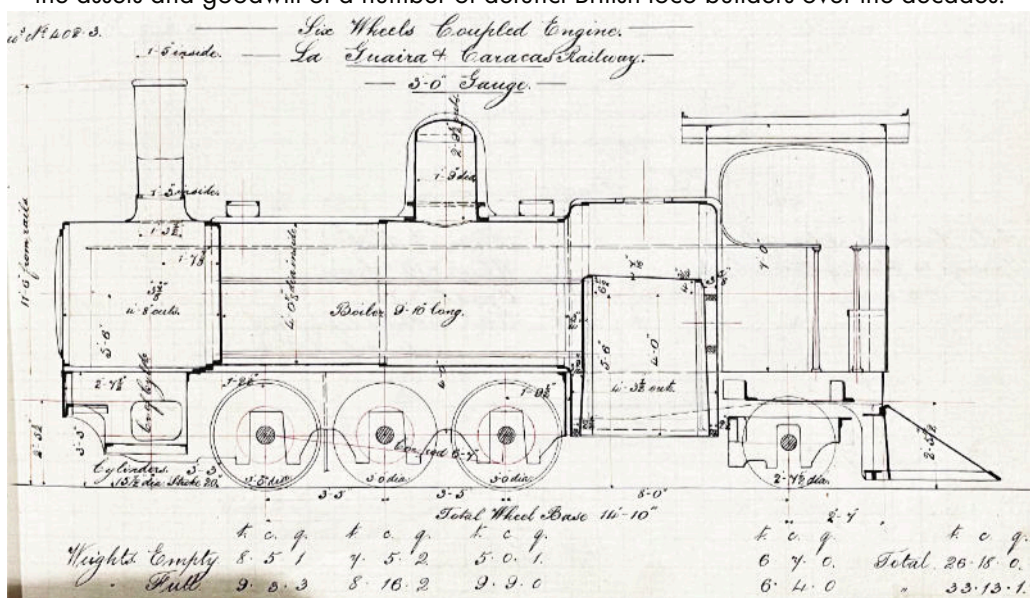
[1] suggests that NW nos. 404-406 had been ordered but this was cancelled. Certainly SLS file WL10330 shows 404-406 as cancelled but without mention of the customer.

15 w/n 407 Replacement boiler fitted in 1914 [16 1914 pd428 p56]. OoS 1928?

16
17
18



A Nasmyth Wilson GA drawing found in the Hunslet archive at Staffold Barn Farm in Staffordshire, UK. The Hunslet Engine Company took over the assets and goodwill of a number of defunct British loco builders over the decades.



A much simpler and clearer weights diagram but illustrating the same design of loco. This one was found in a Nasmyth Wilson diagram book at the SLS Library in Bristol.

The fleet early in the new century

Both source [14] and the company's report to share-holders for 1901 confirm the presence of eighteen engines that year and the former states that the earlier eight, built in the early 1880s were being rebuilt at that time. However, in 1903 the total dropped to 17 and then in 1906 to 16.

Heberlein brakes

The railway's management may well have felt a little pressurised on this topic by 1910, for in the *MOP memoria* for that year is a defence of the Heberlein system penned by the company's administrator, presumably to the ministry: *Al parrafo de la nota que dice: "Debo ademas recordar a esa Empresa, que segun los terminos expresos de su contrato, los frenos deben ser de la más moderna invención, y que se impone, por lo tanto, el cambio de los muy anticuados sistema 'Heberlein' por frenos neumaticos modemos. Tiene esto tanta mayor importancia en ese ferrocarril cuanto que en sus fuertes pendientes, una parte del tren que accidentalmente quedare separado de la maquina, se precipitaria en movimiento acelerado hasta adquirir velocidad incompatible con su estabilidad si sus frenos no actuasen energica y oportunamente. Sobre el freno 'Heberlein', que la experiencia y practica nos ha hecho considerar como el mas a proposito para nuestra Linea, copiare el contenido de una carta que tuve el placer de recibir del Vice—Presidente de uno de los Ferrocarriles mas importantes de los Estados Unidos de Norte America, 'The Baltimore & Ohio Railroad Company,' en su viaje por este Ferrocarril en febrero último.*

El suscrito tuvo el placer de hacer un viaje recientemente por su Ferrocarril y noto con mucho interes la manera como se manejaban las cosas. El viaje fue muy agradable y se manejaron los trenes admirablemente en ambas direcciones por las montañas.

«Una de las cosas que mas me llamo la atencion fue el sistema de frenos, y mucho le estimaria a usted si me pudiera dar una descripcion de ese sistema de frenos.

Para ayudar a la seguridad de los trenes, previendo el caso de romperse el 'tope', la Empresa tiene colocados a ambos lados del 'tope' ganchos de seguridad con sus cadenas; por otra parte, si una parte del tren quedase separada de la Maquina, los wagones quedarian trancados pues el 'Heberlein' trabaja automaticamente y la mejor prueba de la eficacia del 'Heberlein' es que la Compañía nunca ha tenido desgracias que lamentar durante los 30 años que esta en su uso. Esta clase de frenos tiene una gran demanda especialmente para ferrocarriles montañosos. Ademas del freno 'Heberlein' los vehiculos tienen freno de mano y la Maquina el freno 'Chatelier' de gran fuerza.

No podria obligarse a la Compañía a introducir constantemente en su Linea y accesorios todas las mejoras y nuevas invenciones que a diario se hacen, y esto no puede ser la interpretacion de su Contrato, pues serian interminables las innovaciones; las modernas invenciones a que se refiere el contrato fueron las existentes para aquella epoca; sin embargo, no por eso deja la Compañía de estudiar los medios mas adecuados para tener un servicio esmerado y conservar su linea a la altura de la reputación de que goza.

Me he permitido extenderme en esta exposición, confiado en que el Ciudadano Ministro, vera como la Compania atiende sus asuntos de Adminitración y el celo constante con que vela por su buena marcha.

Con sentimientos de toda consideración soy del Ciudadano Ministro muy atento y seguro servidor:

Por la Compañía Anónima del Ferrocarril de La Guaira a Caracas:

Jas. Flind.

Administrador.

1914 memoria

Fifteen locos of between 30 and 36 tonnes were stated to be in service in the railway's 1912 annual report. Source [20] also gives that total in the same year.

The fleet in 1925

US report says 13 British-built locos in use 1925, 0-6-2s, old and will be discontinued after electrification.

10.4.3 El Gran FC de La Ceiba

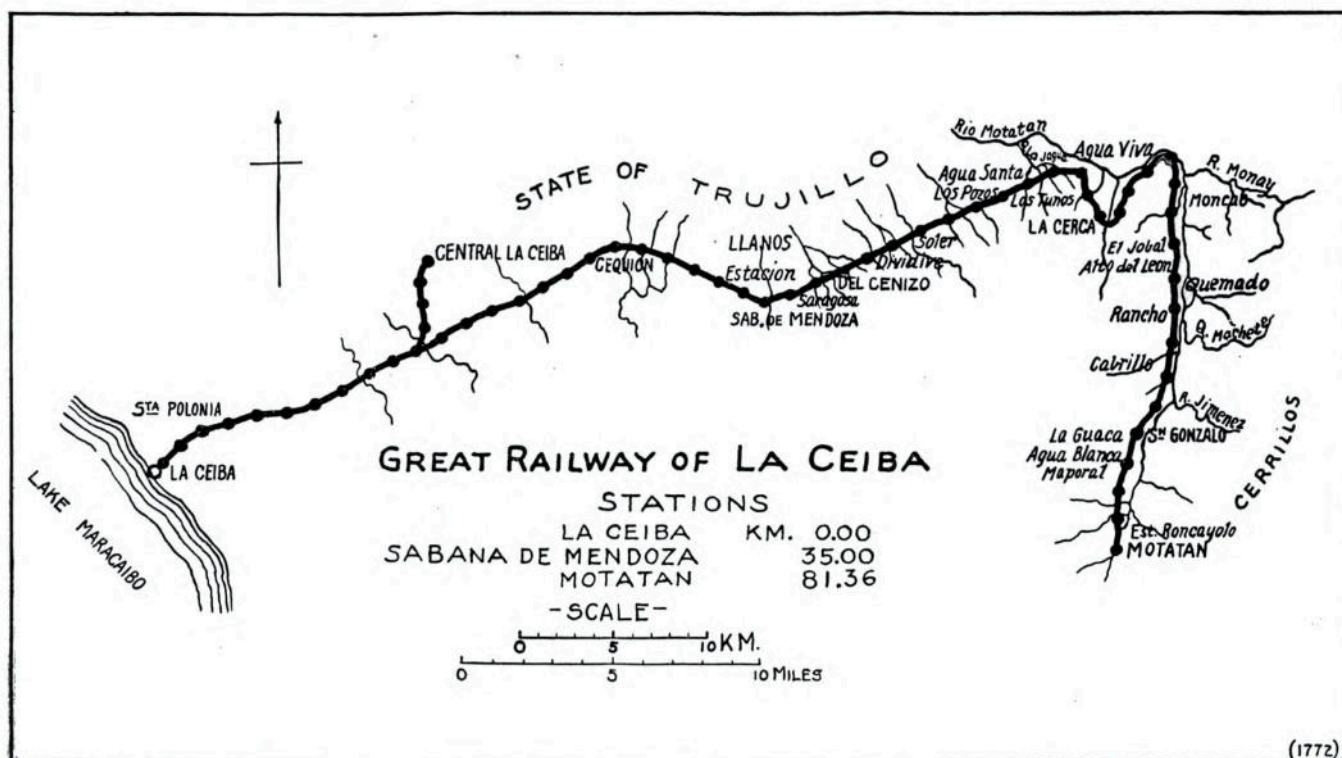
1888-1942



Background

Gauge 3' 0". Created by a merger between the *Cía. Ferrocarriles de Trujillo* and the *FC de La Ceiba*. 81.4 km. Opened 1888-1895 and to Valera in 1925. Closed 1942.





0-4-0T d/w ?, cyls. 6x10", built by Porter in 1885

Ordered by Sorzano & Co.

1 'MARGARITA'

w/n 711

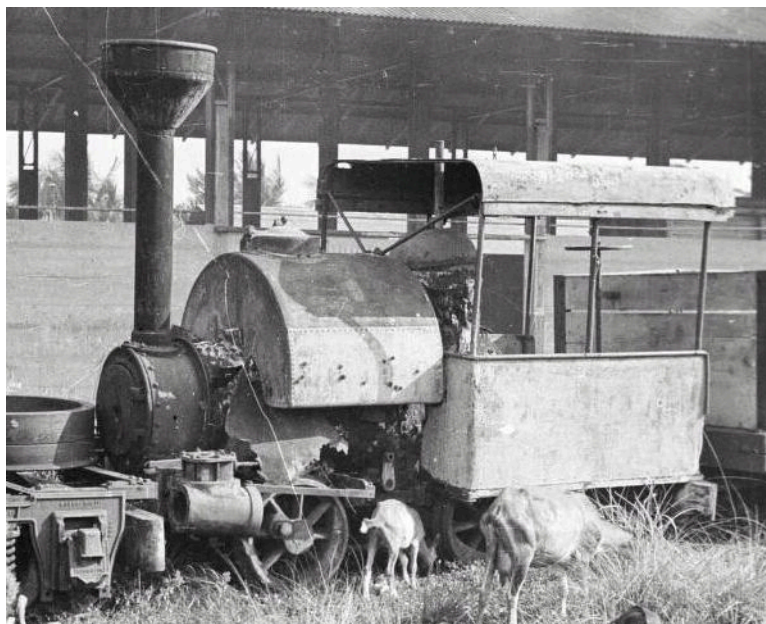
This engine was listed in 1918 (see below) as being used for service on "la Tranvia" and for shunting at La Ceiba station.

0-4-0T d/w ?, cyls. 7x12", built by Porter in 1887

Ordered by Julio F. Sorzano. Driving wheels probably of 24" diameter.

2 'LUISA'

w/n 818



This will have been 'MARGARITA' or 'LUISA'.

The photo was taken at Motatan in 1933.

0-6-0 d/w ?, cyls. 10x16", built by Porter in 1887

Ordered by Julio F. Sorzano.

3 'La TUM TUM'

w/n 852

0-6-0 d/w ?, cyls. 10x16?", built by Porter in 1887

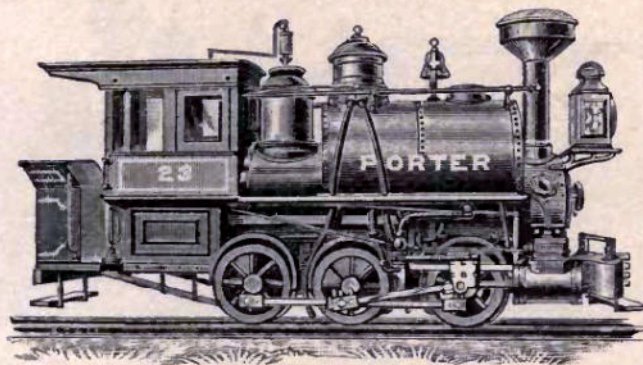
Ordered by Julio F. Sorzano. Name and number of this engine not mentioned in Bob Lehmuth's Porter list, unlike the earlier engines, but deduced from later *MOP memoria* lists (which see below). Details in that list say cyls. 10x12" but 10x16" is much more likely to be correct. If so then the 1889 Porter catalog suggests that the driving wheels would have been of 30" diameter.

4? 'ANITA'?

w/n 898



An 0-6-0ST lying abandoned at Motatán in 1933. Since '**TUM-TUM**' and '**ANITA**' were recorded as identical in size in 1917, and a good deal larger than '**MARGARITA**', this engine was probably one of those two.



Cylinders	diameter.....	10 inches.	12 inches.	12 inches.	14 inches.
	stroke	16 inches.	16 inches.	18 inches.	20 inches.
Diameter of driving wheels...		30 inches.	33 inches.	36 inches.	40 inches.
Wheel-base		7 ft. 8 in.	8 ft. 1 in.	9 ft. 0 in.	10 ft. 0 in.
Length over all.....		19 ft. 0 in.	20 ft. 0 in.	20 ft. 6 in.	21 ft. 6 in.
Weight in working order (all on drivers)...		33,000 lb.	38,000 lb.	43,000 lb.	51,000 lb.
Capacity of saddle tank.....		600 gals.	750 gals.	750 gals.	900 gals.
Weight per yard of lightest steel rail advised.....		30 lb.	35 lb.	35 lb.	45 lb.
Hauling capacity on a level, in tons of 2,000 lb..		850 tons.	950 tons.	1150 tons.	1350 tons.

The known dimensions of **3 'TUM TUM'** and **4 'ANITA'** suggests that they were built to the spec. in the first column of the above table, though this was copied from an 1889 Porter catalog rather than from 1887.

2-8-0ST/2-8-2ST d/w 33", cyls. 14x16", built by Baldwin in 1893

Ordered for Julio F. Sorzano, Venezuela. BLW class 10-22E no. 14. Spec. is in vol. 19 p 55. Tender to be inscribed 'COMPAÑÍA ANÓNIMA DEL GRAN FERROCARRIL DE TRUJILLO' The Hoffman file on Baldwin foreign locos has this as 13846. Trial steaming 28th Nov. 1893, and despatch 16th Jan 1894. Cost \$6100. It seems likely that this engine began a new number list for the *FC de Trujillo*, separate from the earlier list of Sr. Sorzano's locos. There has been confusion over this loco, with suggestions that it went to the *FC Salaverry á Trujillo* in Peru. However, the Baldwin spec. sheet clearly says Venezuela, and Sr. Sorzano's name is shown on the cabide..

Sr. A. Roncajolo reported: *El día 11 de febrero ultimo, llegó a este puerto la gran locomotora " Trujillo " y sin perdida de tiempo siguió a " La Ceiba " en el vapor "Los Andes."*

Esa maquina fue construida por diseño especial del inteligente ingeniero constructor, señor don Julio F. Sorzano y esta llamada por sus magnificas condiciones a salvar cualquier inconveniente que pudiera presentarse en sus importantes trabajos.

Estamos seguros de que no tendra obstaculos de ningun linaje ; pero no hemos querido omitir gasto alguno a fia de obtener esa locomotora ; acerca de la cual dice el señor Sorzano :

"Por el vapor 'Philadelphia' que saldra el 23 del presente, embarcaré a la consignacion de ustedes y para el Gran Ferrocarril de Trujillo 23 bultos, comprendiendo por junto todas las partes y piezas de la locomotora 'Trujillo'.

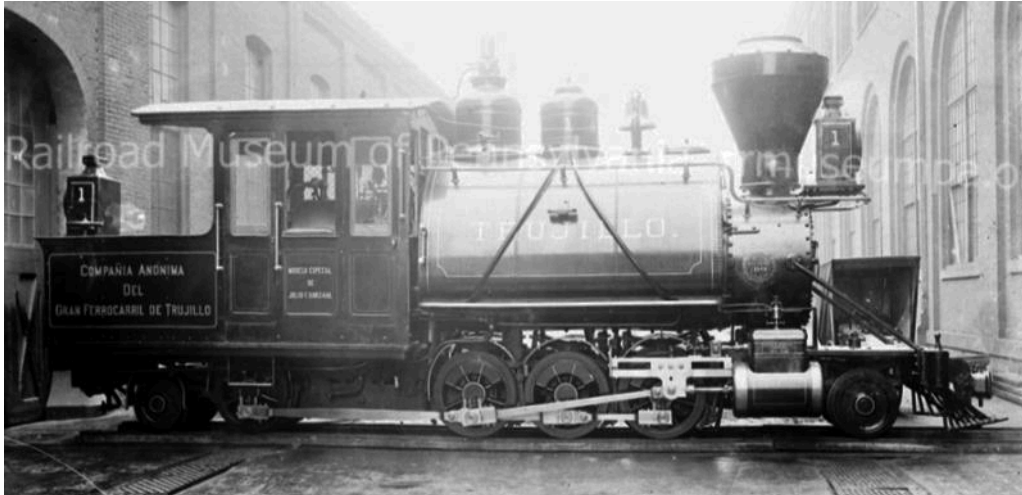
Cuando vean ustedes esa maquina, se uniran a la opinion de todos los que la han visto ya y la reputan como una de las mejores locomotoras que se han construido en los Estados Unidos ; salvo que prefieran ustedes creer que yo, que a tamaño igual es la mejor por su diseño, los materiales de que esta construida, el esmero en su construccion, su potencia de traccion y las condiciones especiales quo esta llamada a veneer en su servicio.

"Tuve el gusto de hacerla probar en mi presencia : la he hecho funcionar con vapor a 145 libras de presión a una ve-

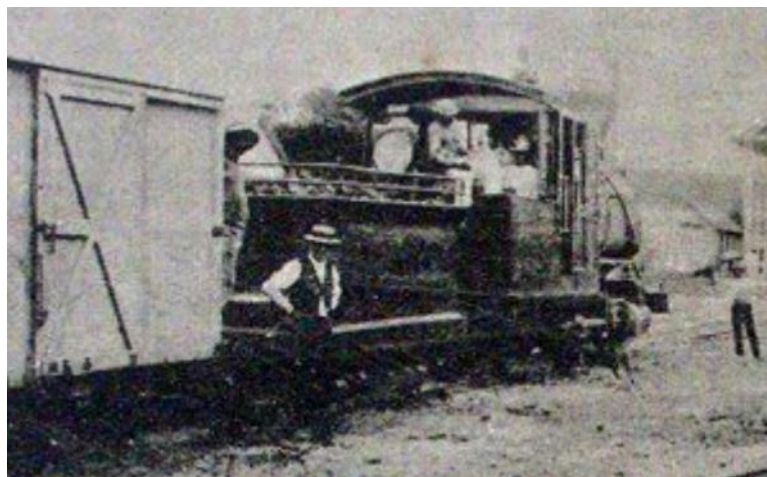
locidad de unas 25 millas por hora. Funcionó divinamente desde las 2 hasta las 4 de la tarde que tuve que abandonar para ir a tomar mi tren de regreso á New York." Arrived at ?? 11th February 1894.

1 'TRUJILLO'

w/n 13846



Given that this 12-wheeled loco was built as Baldwin class 10-22E no. 14, it seems likely that it was first envisaged as a 2-8-0T. Perhaps the eventual weight required the addition of a trailing truck, or maybe the bunker was extended at some point in the construction. In fact the spec. sheet includes the note: "Weight limited. Weight on driving wheels not to exceed 13,600 lbs. on any axle with 900 gals. of water in saddle tank, 1800 lbs of fuel in cab, 2 men and all accesories in running order conflated." Noting the length of the driving wheelbase, one hopes that there was some sideways play permitted or at least a blind pair of wheels. This image is from Baldwin negative 00747-1 and hi-res copies can be purchased from the Railroad Museum of Pennsylvania.

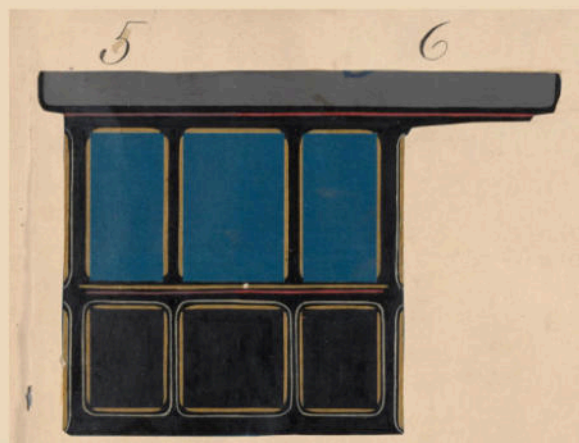
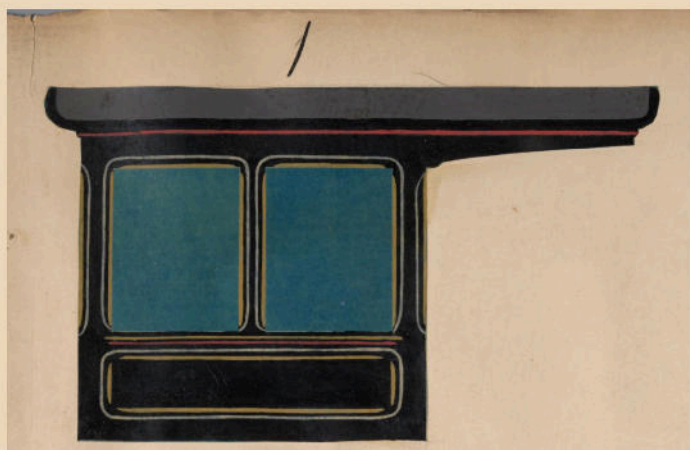
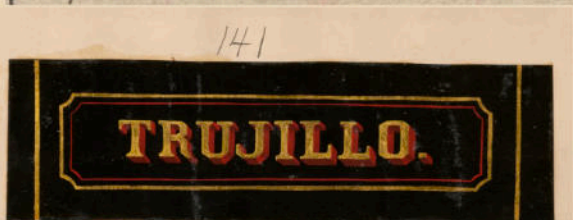


The bunker behind the cab suggests that this photo shows no. 1 'TRUJILLO', but notably the loco appears to be working with a tender coupled on behind.

Locomotive painting styles

The following images were gathered from the Baldwin style books conserved at Stanford University and available online at <https://purl.stanford.edu/fb584yc9195> and <https://purl.stanford.edu/jw230zc7560>

<i>Style</i>	<i>Cab.</i>	<i>Cylinder</i>	<i>Tank</i> <i>ON</i> <i>Boiler</i>	<i>Sand</i> <i>Box</i>	<i>Drill</i>	<i>Tender</i> <i>Tank</i>	
272	6	6	141	19	20	—	10-22 E 14 JULIO F. SORZANO
273	1	6	142	19	20	—	6-14 D 33 JULIO F. SORZANO
274	1	6	142	19	20	143	6-16 D 30 JULIO F. SORZANO



These were the painting styles in use on the *Gran FC de Tachira*, the *Gran FC de la Ceiba*, and the *Tranvia de Bella-Vista* in 1893-4, when locos **1 'TACHIRA'**, of the former line, **1 'TRUJILLO'** of the La Ceiba route,, and **4 'VENEZUELA'** of the Bella-Vista tramway, were built. The summary lists at the top of the page apply as follows:

Style 272, for the Gran FC de La Ceiba,
style 273 for the Tranvia de Bella-Vista,
and style 274 for the Gran FC de Tachira.

By following along those lines, the particular styles for cabs, tanks, sand-boxes, driving wheels and tenders can be identified.

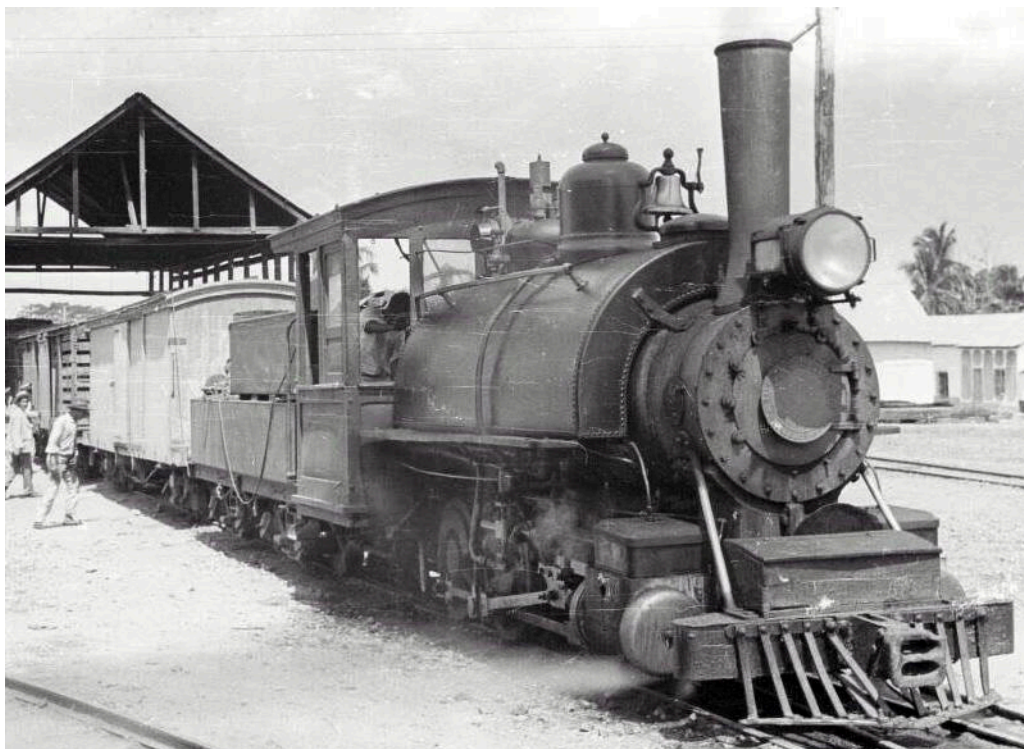
0-6-0STT d/w 33", cyls. 11x16", built by Baldwin in 1894 and 1922

Ordered for *Gran Ferrocarril de la Ceiba*. BLW class 6-16D nos. 35, 49, and 75. Specs. are in vol. 19 p 178, and vol. 66 p 141. Erecting card drawings numbered 162-3AX 10684 and 162-3BX 10685 for the final engine are in the DeGolyer Library collection. The first was to have 'COMPAÑÍA ANÓNIMA DEL GRAN FERROCARRIL DEL TRUJILLO' on the cab and tender, whilst the second was to bear 'GRAN FERROCARRIL DE LA CEIBA'

? 'VENEZUELA' w/n 14945

? 'RONCAJOLO' w/n 15063

8 'VALERA' w/n 55313 d/w 31½". Price asked for replacement boiler in 1935 when loco had already been converted to oil.



One of the standard Baldwin 11x16" 0-6-OSTT locos that were the mainstay of the *FC de Tachira's* fleet but also served here at La Ceiba. This one has lost its second sand-dome. The loco has also been converted to oil-burning, thus losing its original Radley & Hunter or Rushton stack and also ending up with a rather different style of oil-carrying tender.

The fleet in 1894

The MOP memoria for 1895 [16, 1895, p354] includes the following:

MATERIAL RODANTE

Esta empresa como material rodante, está á la vanguardia por el pequeño tráfico que hace; posee cuatro locomotivas en muy buen estado y de fuerzas suficientes para arrastrar cuarenta wagones de carga de á seis mil kilos cada uno y estos están muy bien tenidos y esmeradamente contruidos, además, acaba de llegar una locomotora nueva de mayor fuerza, que servirá para el tráfico de la prolongación. Solamente su caldera pesa treinta toneladas; fué fabricada en una de las mejores fábricas de los Estados Unidos, bajo la dirección de un buen mecánico é ingeniero reputado.

The fleet in 1896

The MOP memoria for 1897 [16, 1897, p340] includes the following:

Material Rodante. Consta el material rodante de:

6 locomotoras, á saber: dos pequeñas, ya fuera de uso que se utilizaron en la construcción; dos de 16 toneladas que hacen el servicio entre La Ceiba y Sabana de Mendoza; una de 22 toneladas que lo hace entre Sabana de Mendoza y Motatán, y una de 25 toneladas que se haya de reserva en la estación de Sabana de Mendoza. Las dos de 16 toneladas y la de 22 son de seis ruedas acopladas con *tender* montado sobre dos *boggies* de 4 ruedas; la última, de 25 toneladas tiene el *tender* unido á la máquina que es de ocho ruedas acopladas, dos bajo el tender, y *boggies* de dos ruedas uno adelante y otro atras.

2 coches de pasajeros de primera clase.

2 id. id. » segunda clase.

18 wagones de carga cubiertos.

8 id. id. descubiertos y

1 carro de tranvía, que, tirado por caballos recorre los primeros 8 kilómetros á partir de la Ceiba en las horas en que está libre la vía.

Las locomotoras tienen freno de mano y de vapor, los wagones tienen todos frenos de mano.

El combustible usado es leña, que se encuentra de muy buena calidad en las cercanías de la línea.

An 1898 report

Source [4], already met in the *FC Guanta a Naricual* section, lists the following seven locos for this railway:

‘MARGARITA’ con su tender.

‘LUISA’ con su tender inútil.

‘TUM-TUM’ con su tender buen estado.

‘ANITA’ con su tender y utiles de viaje.

‘**TRUJILLO**’ en reserva.

‘**VENEZUELA**’ con su tender.

‘**RONCAJOLO**’ con su tender y utiles de viaje.

We have seven locos on this railway by 1894, but followed, see below, by no. 7 ‘**BOCONO**’ in 1913. It therefore seems likely that one had been withdrawn by then.

1907 and 1909 memorias

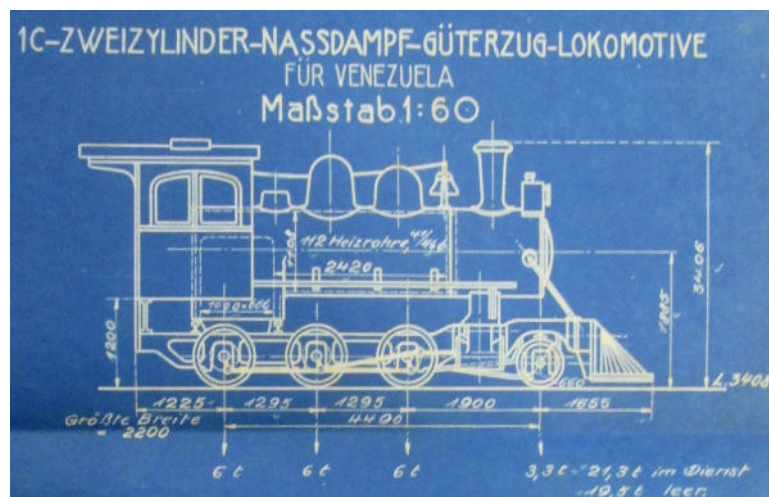
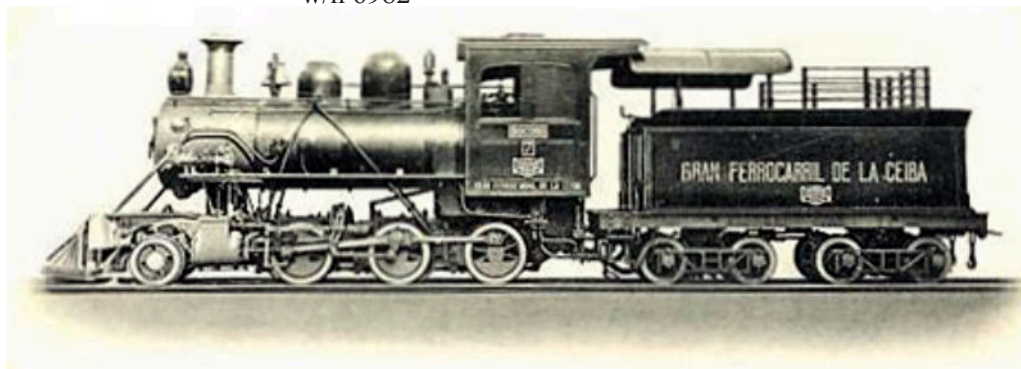
The statement above is supported by the 1907 *Obras Públicas memoria* stating that the railway had six engines at that time [16 1907 pd411 p235]. The 1909 volume [6] and 1910 [16 1910 pd285 p109] also stated that six locos were in service.

2-6-0 d/w ?, cyls. 12x16"?, built by Hanomag in 1913

Ordered for *FC de la Ceiba*. The cylinder dimensions above are as recorded in the 1920s US report. The 1914 MOP memoria reported: *La locomotora "Boconó," importada de Europa y a la cual me referi en mi informe del año pasado, al significar a usted, entonces, que se estaba armando para destinarla al tráfico ordinario de la línea, ha resultado de muy buenas condiciones, y llena, a satisfacción, su objeto.*

7 ‘**BOCONÓ**’

w/n 6982



1914 Memoria

This volume reports “En este momento han funcionado ya y están para funcionar 7 locomotoras, entre ellas, una más pequeña destinada al tráfico del Tranvía organizado de tiempo atrás para el trasporte de transeuntes y frutos en las cercanías de la parte inicial de la vía férrea. La nueva locomotora **Bocono**, importada recientemente de Europa, se está armando para destinarla al tráfico ordinario de la línea; han sido reconstruidas en los talleres con nuevas calderas y accesorios las locomotoras **Roncayolo**, **Anita** y **TumTum**.; dentro de poco lo serán también las locomotoras **Venezuela** y **Trujillo**, y de este modo la Compañía está en capacidad de atender a la movilización con material nuevo y suficiente para las necesidades del servicio.” [7] A separate table covering all Venezuelan railways give the total number of engines as six [16 1914 pd514 p104a].

1916 and 1917 memorias

MATERIAL RODANTE

El material rodante de que dispone actualmente la Empresa de este Ferrocarril consta de los siguientes elementos:

1.—Locomotoras.

Posee la Compañía siete locomotoras, cuyas características resumimos en el cuadro siguiente:

Nombres de las locomotoras	Tender.	Capacidad de los estanques de agua	PESO		Potencia de las máquinas
			Vacías	En servicio	
"Trujillo"	Con tender unido.	6.000 litros	33 toneladas	41 toneladas	110 caballos
"Margarita"	Sin tender	800 "	—	6 "	—
"Tum-Tum"	Con tender	5.000 "	23 $\frac{3}{4}$ "	31 $\frac{3}{4}$ "	65 "
"Anita"	Con tender	5.000 "	23 $\frac{3}{4}$ "	31 $\frac{3}{4}$ "	65 "
"Venezuela"	Con tender	5.600 "	27 $\frac{3}{4}$ "	35 $\frac{1}{2}$ "	95 "
"Roncajolo"	Con tender	5.600 "	27 $\frac{3}{4}$ "	35 $\frac{1}{2}$ "	95 "
"Boconó"	Con tender	7.500 "	25 $\frac{1}{2}$ "	34 $\frac{1}{2}$ "	110 "

La pequeña locomotora "Margarita" hace el servicio de maniobras en la Estación de La Ceiba; y también se utiliza en el tráfico local entre La Ceiba y Santa Apolonia.

The 1916, 1917 and 1919 memorias each contained this table.

1918 memoria

MATERIAL RODANTE

Locomotoras

Venezuela.—Con tender separado, con capacidad el estanque de agua de 5.600 litros, peso: vacía 27 $\frac{3}{4}$ toneladas, en servicio 35 $\frac{1}{2}$ toneladas y con potencia de 95 HP.

Trujillo.—Con tender unido, capacidad del estanque de agua 6.000 litros, peso: vacía, 33 toneladas, en servicio, 41 toneladas y potencia de 110 HP.

Roncayolo.—Con tender separado, capacidad del estanque de agua 5.600 litros; peso: vacía, 27 $\frac{3}{4}$ toneladas, en servicio, 35 $\frac{1}{2}$ y con potencia de 95 HP.

Tum-Tum.—Con tender separado, capacidad del estanque de agua 5.000 litros; peso: vacía, 23 $\frac{3}{4}$ toneladas, en servicio, 31 $\frac{3}{4}$ toneladas y con potencia de 65 HP.

340

Anita.—Con tender separado, capacidad del estanque de agua 5.000 litros; peso: vacía, 23 $\frac{3}{4}$ toneladas, en servicio, 31 $\frac{3}{4}$ toneladas y potencia de 65 HP.

Boconó.—Con tender separado, capacidad del estanque de agua 7.500 litros; peso: vacía, 25 $\frac{1}{2}$ toneladas, en servicio, 34 $\frac{1}{2}$ toneladas y potencia de 110 HP.

Margarita.—Sin tender, capacidad del estanque de agua 800 litros y potencia de 30 HP. (Esta Locomotora hace el servicio del Tranvía y de maniobras en la Estación La Ceiba).

Also, in March 1917 loco no. 6 hauling an up train collided with an inspection trolley at the exit of tunnel 13, with fatal results.

1921 memoria

"Locomotora nueva encargada.--Mejoramientoo de la linea.- Se ha considerado indispensable el encargo de la primera, mediante detalles precisos y concordantes con el tipo de les locomotoras "Venezuela" y "Roncajolo", las cuales han dado resultados prácticos y satisfactorios. Estas máquinas fueron construidas por la renombrada fábrica The Baldwin Locomotive Works, de Filadelfia. Con la adquisición de la nueva máquina, el tráfico será, sin duda, más activo. "

0-4-0ST d/w 24", cyls. 7x12", built by Baldwin in 1925

Ordered for Gran Ferrocarril de la Ceiba. BLW class 04-08C no. 98. Spec. is in vol. 78 p190. Tank sides to be

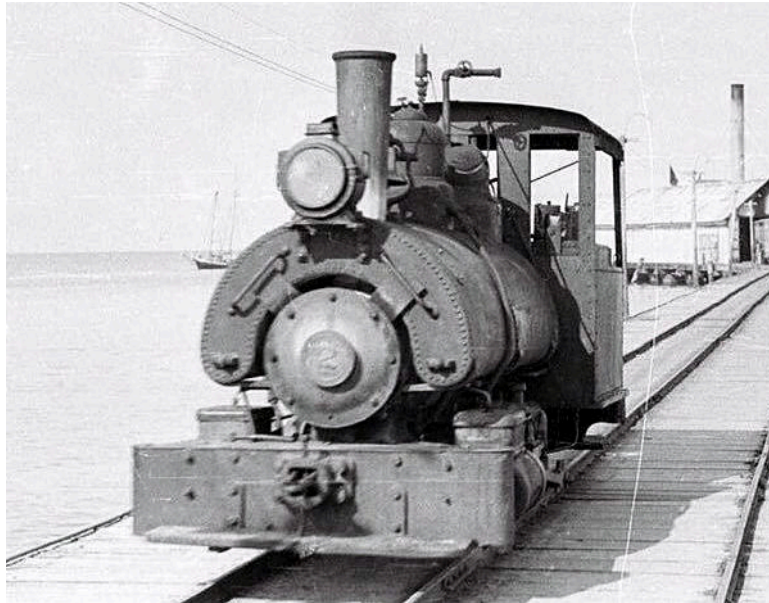
painted: 'ESCUQUE and then beneath GRAN FERROCARRIL DE LA CEIBA'.

2 'ESCUQUE'

w/n 58416

1925 data in US report

There were reported to be eight US-built locos with either 6x10" or 10x16" cylinders, also one German engine presumably no. 7.



There were two number 2 locos. This picture from 1933 shows one of them seemingly in good condition, meaning that it was probably the later of the two.

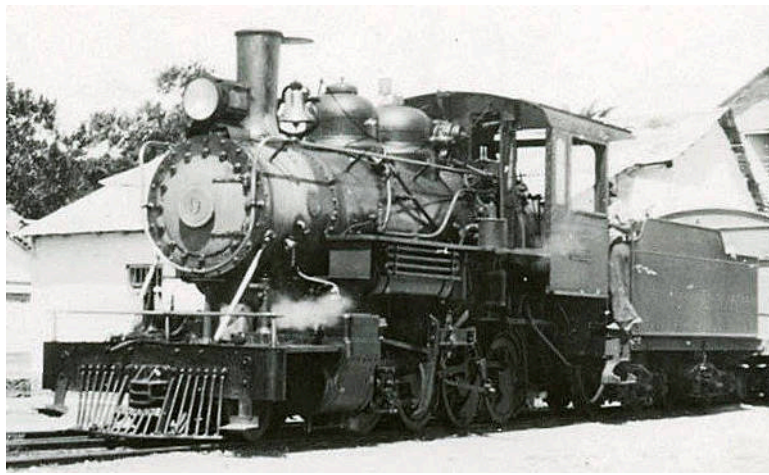
2-8-0 d/w 37", cyls. 14x18", built by Baldwin in 1926

Ordered for *Gran Ferrocarril de la Ceiba*. BLW class 10-22E no. 109. Spec. is in vol 78 p 192. Total wheelbase to suit turntable diameter of 14 metres. Oil burning.

9 'TRUJILLO'

w/n 58999





1936 total

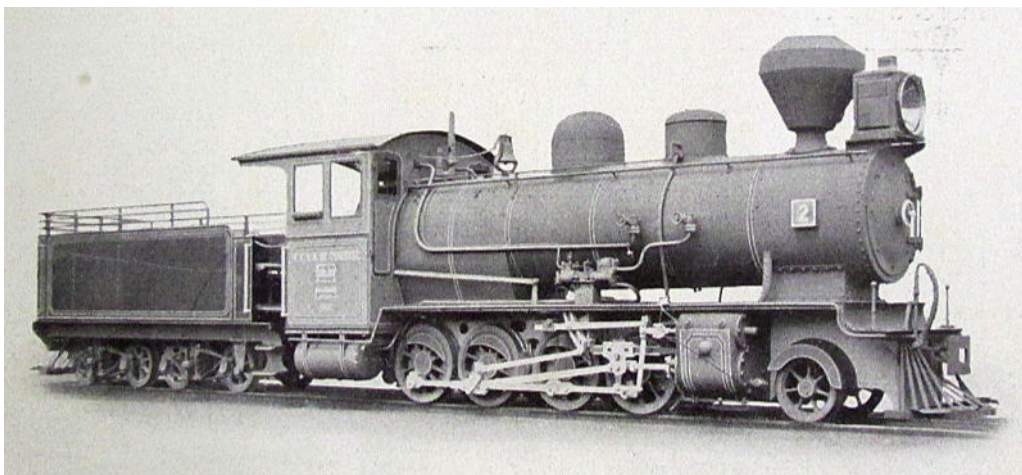
The 1936 *Supplement to the World Survey of Foreign Railways* gives the number of locos on this railway as nine.

2-8-0 d/w ?, cyls. ?, built by O&K in 1939

Ordered for *Gran Ferrocarril de la Carva* (sic). 300hp. The running number **2** has only been evidenced by the unconfirmed photograph shown below. However, O&K built fewer than 90 steam locos for the 3' 0" gauge, and of them only a couple were 2-8-0s.

2?

w/n 13213



This O&K 2-8-0 built for the 3' 0" gauge has not been confirmed as that which came to this railway but it seems very likely. O&K built only two such engines for this gauge, the other being built for Mexico and numbered **1**.

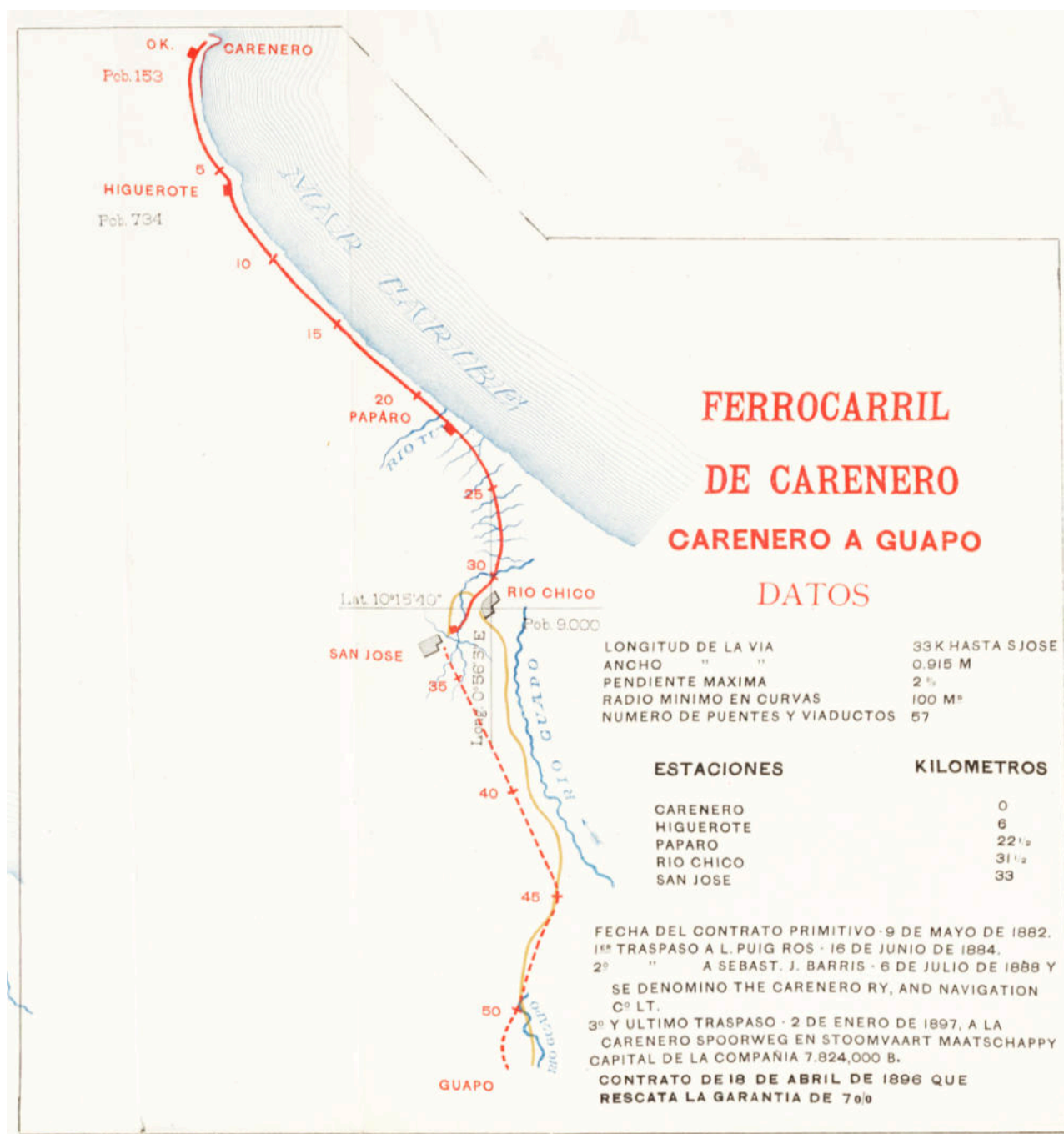


The station yard at La Ceiba with four locos in view. Whilst all four appear to have saddle tanks, that on the far left looks larger and has a bunker behind the cab. It might be the 2-8-2T no. **1 'TRUJILLO'** but unfortunately its rear end is obscured by a boarded fence so identification is more difficult.

10.4.4 El FC de Carenero (2nd generation)

1885-1889 75 cm gauge, see section 10.5.1 for loco details

1889-?, 3' 0" gauge



Background

Original concession granted to Lázaro Puig Ros in June 1884 for a railway south-east along the coast from Carenero to Río Chico, and immediately transferred to the *Cía. Anonima de navegación Fluvial y Maritima de Barlovento*. This was for a railway of 750mm gauge, which apparently opened in March 1885.

A Carenero Railway & Navigation Co. Ltd. was registered in London in 1888. The railway and associated shipping line on the Río Tuy and the nearby coastline had been bought from the above-mentioned *Cía. Anonima* by Nicholas John Henry Schotborgh of London, and was sold to the new company in June 1889. The company was to extend the railway from San José to Altagracia, on the 3' 0" gauge, with the existing line also relaid to the new gauge.

The sale agreement of 1889 [17] specifies much about the proposed extensions, and the requirements relating to the motive power are set out below.

However, the CR&N Co. went into liquidation in 1895, being taken over by a Dutch company, the *Carenero Spoorweg en Stoomvaart Maatschappij* (spellings vary). Chris West suggests that there had always been a Belgian or Dutch element in the company's investors, so possibly the liquidation was merely a restructuring. He then says: "Attached is a page from *The Railway News* dated 23 March 1889 which has a prospectus for debentures in The Carenero Railway & Navigation Co Ltd. Looking at the detail of the prospectus it says subscriptions were to be received in Amsterdam, Brussels and Antwerp as well as London, so it would seem there was a strong Dutch/Belgian character to the company from the start, even if it was registered in England.

In 1890 Schotborgh, for The Carenero Railway & Navigation Co Ltd., entered into an agreement for the extension of the railway with the *Compagnie Generale de Railways a Voie Etroite Societe Anonyme* of Brussels, which was represented by Edouard Empain and Du Roy de Blicquy... However, that company withdrew from the contract before the end of that year, it being re-allocated to a newly-created Venezuela Public Works and Credit Co. On 5th August 1891 the bridge over the Rio Tuy was completed and from then on trains on the newly widened gauge were able to run between Carenero and Rio Chico.

Only three years later the Narrow Gauge Railway Company was petitioning for The Carenero Railway & Navigation Co Ltd. to be wound up, although there were counter-claims from the Dutch investors. It may be of note in 1894 the company's largest shareholder was that same Venezuela Public Works & Credit Co., of London.

The Carenero Railway & Navigation Co Ltd. was eventually restructured in 1895. At that time the company's secretary was Archer Jeston Secretan."

Later the railway came into the hands of Sr. Victor Crassus and then into the ownership of his descendants.

The length of railway quoted in 1927 was 54.4 km. so it would seem that little of the extension had been completed since the overall length of route to Altagracia would have been 110 km. or more. El Guapo (km. 42) had been reached in 1896, and a further 10 km. to La Espagnola de Guapo was almost ready.



Locos for the regauged railway and for the extensions – to ‘the Northern foot of the Sierras’ and onward to Altagracia de Orituco

The 1889 agreement includes the following references to locomotives in relation to the proposed reconstruction and extension work [17 pp28-9]:

“So soon as the gauge is altered, and the new rolling stock to an equal amount supplied in working order, the Contractor may remove and dispose of the existing rolling stock on the open line.

The mountain locomotives shall be of such tractive force, and of such power generally that two of them shall in combination haul on the mountain inclines of the second section at the same speed the same loads as shall be hauled by the ordinary locomotives on the first section.

The quantity of rolling stock is to be as follows :-

6 Locomotives for the mountain incline

3 Ordinary locomotives	
4 First class carriages	
8 Second class carriages	
25 Flat wagons	) each to carry
25 High-sided open wagons	) 10,000
25 Covered wagons	) kilos.
4 Brake vans	

(All to be) Fitted with hand-brakes, and also with automatic vacuum brakes.

Duplicates of all important parts, to the satisfaction of the Chief Engineer, to make up one complete set of each class are to be supplied.

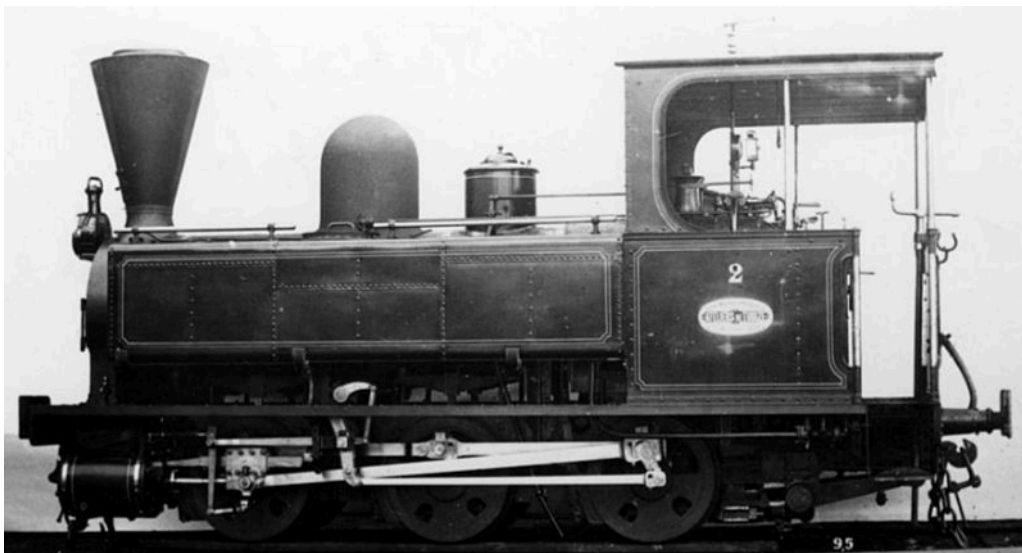
Subject to the requirements of the traffic, the Contractor may use the locomotives ‘Carenero’ and ‘Rio Chico’, and four ballast wagons for constructive purposes, keeping the same in repair.” The named locos were on the original 75cm gauge, as listed in section 10.5.1.

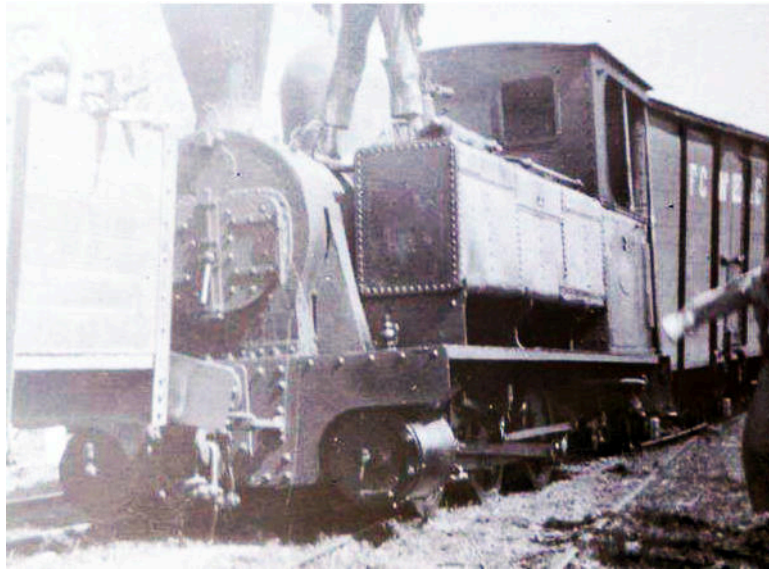
It may be guessed that the three Tubize locos listed below, were the “3 Ordinary locomotives” mentioned in the list above, but that the “6 Locomotives for the mountain incline” were never purchased as the extension work did not get anywhere near the mountain section that had been proposed. Given that the first extension as far as ‘the Northern foot of the Sierras’ was to have a maximum grade of 1 in 50, whilst the further extension on to Altagracia would have been permitted to be as steep as 1 in 22¼, the need for specialised mountain locos can readily be imagined.

0-6-0T d/w 750mm, cyls. 300x360mm, built by Tubize in 1889

Ordered for Carenero R., Venezuela. Tubize type 42.

1	w/n 755	Preserved at Caracas transport museum. Some say this was latterly numbered 129 .
2	w/n 756	) One of these other two is also at the museum whilst the last is
3	w/n 757	) in pieces at the erstwhile Carenero workshops.





Whilst this image was found captioned as showing an *FC de Carenero* loco, the height suggests that the engine is actually mounted on a wagon for some reason.



Note that this engine's tanks appear to have been replaced with others having sharper edges and corners.



These photos are from <http://www.forotrenes.com/foro/viewtopic.php?t=83296>



The fleet in 1894 and 1896

The MOP annual memoria for 1897 [16] states that there were four locomotives on the railway, of 18 tonnes each.

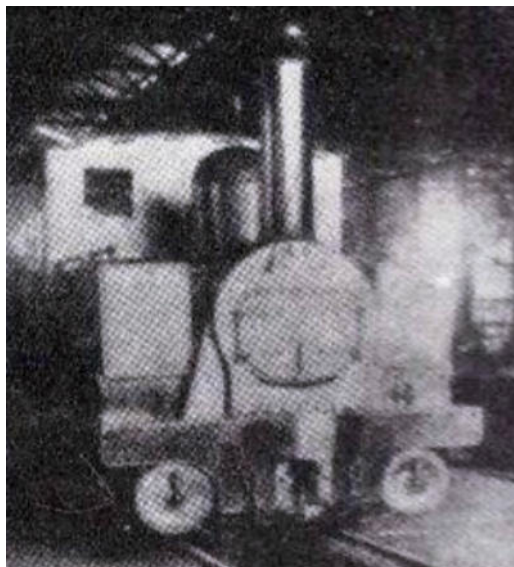
The 1895 memoria had mentioned there being two locos in service, both in good condition, and went on to say “*El puente de Paparo ó sea el que atraviesa el río Tuy, es el que con frecuencia presenta inconveniente á consecuencia de no haberse terminado una seria reparación que necesita, y con este motivo se pasa con dos máquinas, una que empuja el tren y otra que la recibe en la otra cabeza y la lleva á Río Chico y viceversa.*”

0-6-0T d/w 750mm, cyls. 300x360mm, built by Tubize in 1908 and 1921

Tubize type 42 bis. Customer not listed in Tubize list, though 'Delius' type Venezuela is mentioned. The Tubize museum website at <http://www.museedelaporte.be/patrimoine/?p=5278> says that these two were built to metre gauge rather than the 3' 0" gauge of the first three locos.

4 w/n 1576

5 w/n 1847 Ordered to be same as order no. 4686, ie as loco 1576.



This is one of the Tubize locos, in the loco shed, but unlike in all the other photos, this one displays a conventional chimney. There is at least a possibility that it is the later addition, no. **4**.

1914 memoria

The total number of locos was shown in a table in 1914 as five [16 1914 pd514 p104a].

1916 memoria

This memoria contains the statement: *En los talleres de Carenero está ya montada una nueva locomotora que se trajo de los Estados Unidos del Norte, la que muy pronto será puesta al servicio.* [16 1916 pd220 p226]. It is difficult to understand which engine this can have been.

1917 memoria

“*Material rodante.- Se ha tenido especial cuidado en la conservacion de este y ademas, se ha aumentado con nuevos wagons cubiertos y descubiertos, plataformas y trolleys. En los talleres de Carenero esta ya montada una nueva locomotora que se trajo de los Estados Unidos del Norte, la que muy pronto sera puesta al servicio.*”[9]

2-8-0 d/w ?, cyls. , built by Glover Machine Works in 1918

Not traced in Glover list.

4? w/n 1216??

0-4-0ST d/w ?, cyls. ?, built by Hunslet in 1884

Built for Puerto de La Guaira, later transferred here, before 1894.

‘PROGRESO’

w/n

In 1895 the MOP memoria mentioned “*La locomotora 'Progreso' perteneciente a la conservacion, en estado que denunciar estar cansada por exceso de trabajo.*”.



0-6-0T d/w 33"?, cyls. 12x16", built by Glover Machine Works in 1920

Ordered for *Empresa Carenero*. A list by Reimar Holzinger has this engine as Glover 121635.

5 ‘BECERRA’

w/n 121631



Although a poor photo, this seems to show the Glover 0-6-0T with a substantial space between tank and cab, raising the possibility that there was originally a fairing over the gap.

1925 data in US report

There were apparently nine locos, in total; seven Belgian, one American and one British. Whilst the majority of these match those listed above, it is difficult to see how more than five Belgian engines can be accounted for.

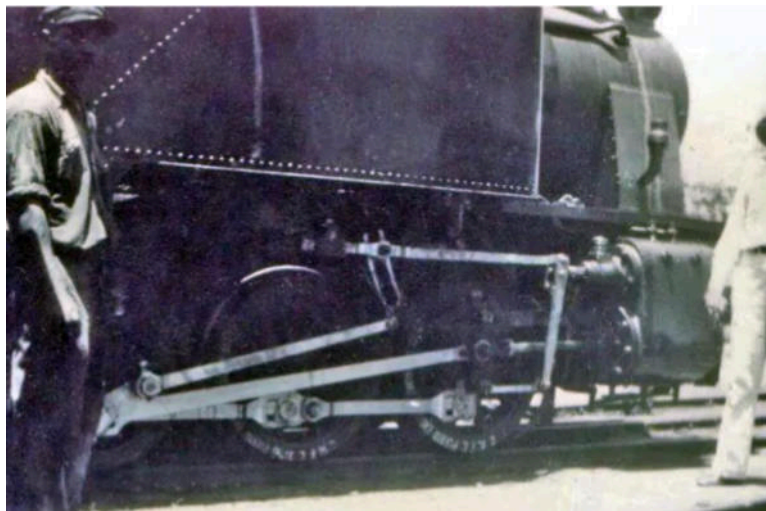
1936 total

The 1936 *Supplement to the World Survey of Foreign Railways* gives the no. of locos on this railway as 7.

0-6-0T d/w ?, cyls. ?, built by O&K in 1938

Ordered for *Carenorobahn*, Venezuela. 110hp. Replacement boiler ordered at same time. See loco illustrated at the end of the section 10.8.1 on the Puerto de La Guaira. That is almost certainly the same loco as this one, but its full history is as yet unclear.

? w/n 13105 Preserved at Caracas Transport Museum.

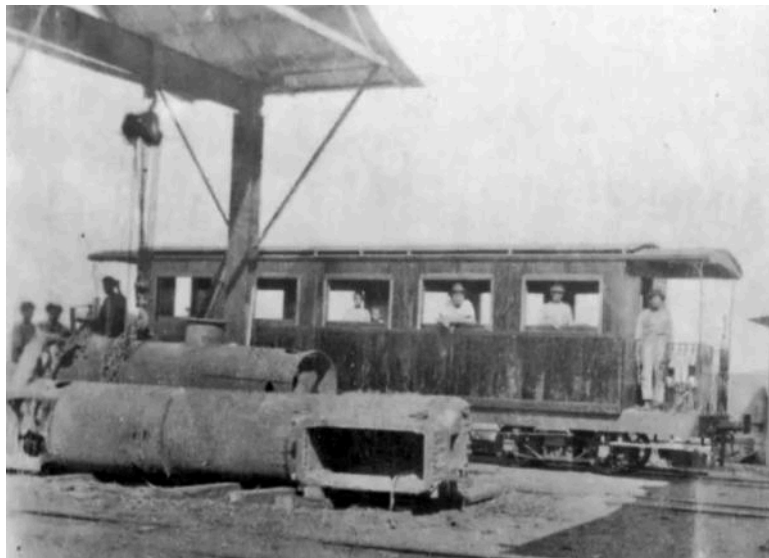


A photo taken on the FC de Carenero showing the O&K when brand new. The lettering on the tyres suggests that the engine had only newly been erected.





This appears to be a steam track de-weeder pushed by one of the Tubize locos.



An FC de Carenero workshop location showing two boilers and a coach.

This is shown here in case the boiler details assist in identification.

10.4.5 *El FC de Maiquetía a Macuto*

1896-1946



Background

1912 to *FC Macuto y la Costa de Venezuela* (aka The Macuto and Coast Line Railway of Venezuela Ltd.), 1913 electrified. Other source says opened 1885. Closed 1946.

The fleet in 1891

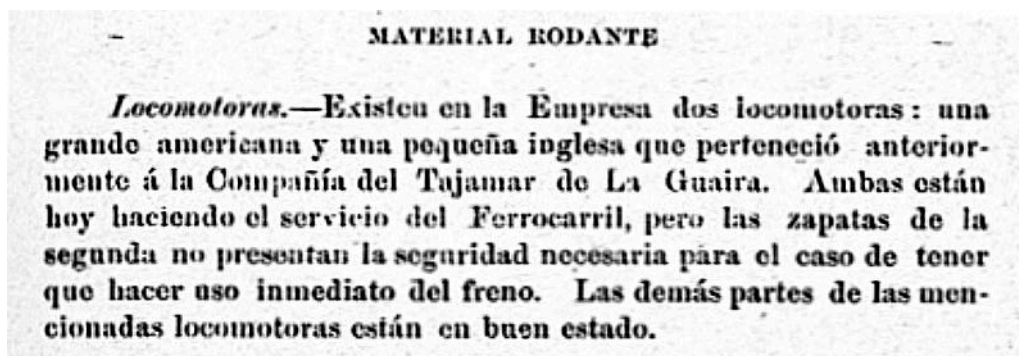
A table from the *Ministerio de Obras Públicas memoria* of 1891 states that the railway owned three locomotives at this time. It also mentions administration involving Punchard y Cía., which suggests that the engines might have been of British manufacture. Allen Morrison suggested that the steam locos were hired from the port of La Guaira, rather than being owned by the railway.

FERROCARRIL DE MAIQUETÍA Á MACUTO.								
26 DE ENERO DE 1891.								
Nombre de la línea	Extensión en kilómet. En explotación	Material rodante					Personal. Adminis- tración central	Tráfico de pasa- jeros
		Locomotoras	Coches para pasajeros			Wagones para carga		
			1. ^a clase	2. ^a clase	3. ^a clase			
Ferrocarril de Maiquetía á Macuto }	8	3	2	2	1	1	Punchard y C ^a	121.282

This table is in the archives of the Restoration & Archiving Trust, with a note to the effect that it came from 'AM' in 2007.

The fleet in 1898

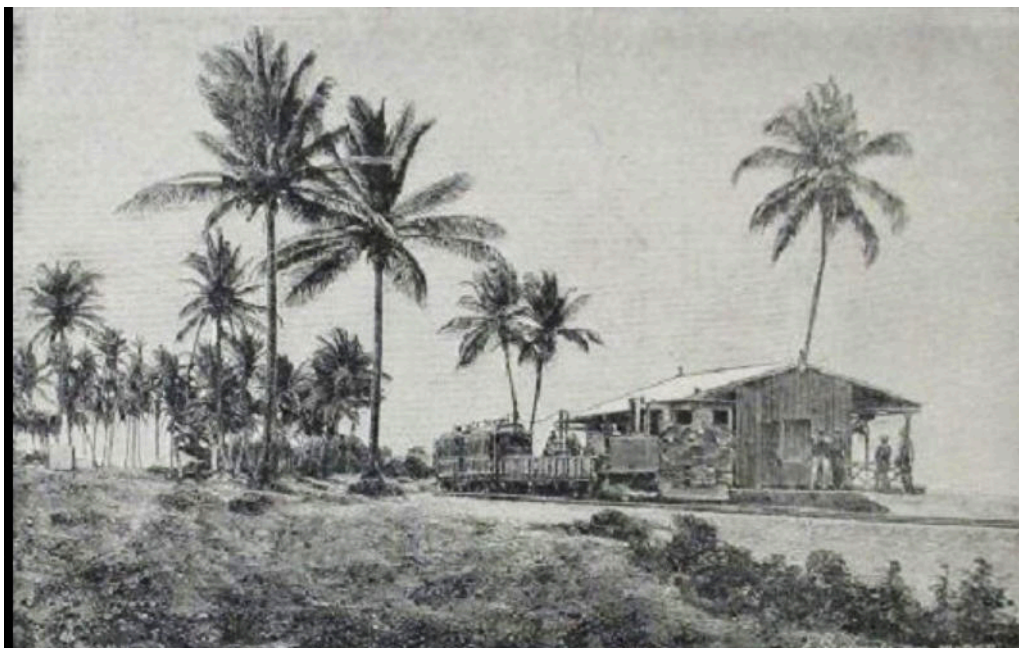
The MOP memoria for 1898 [16, 1898, p294] reporting on an inspection of the railway and its equipment, stated:



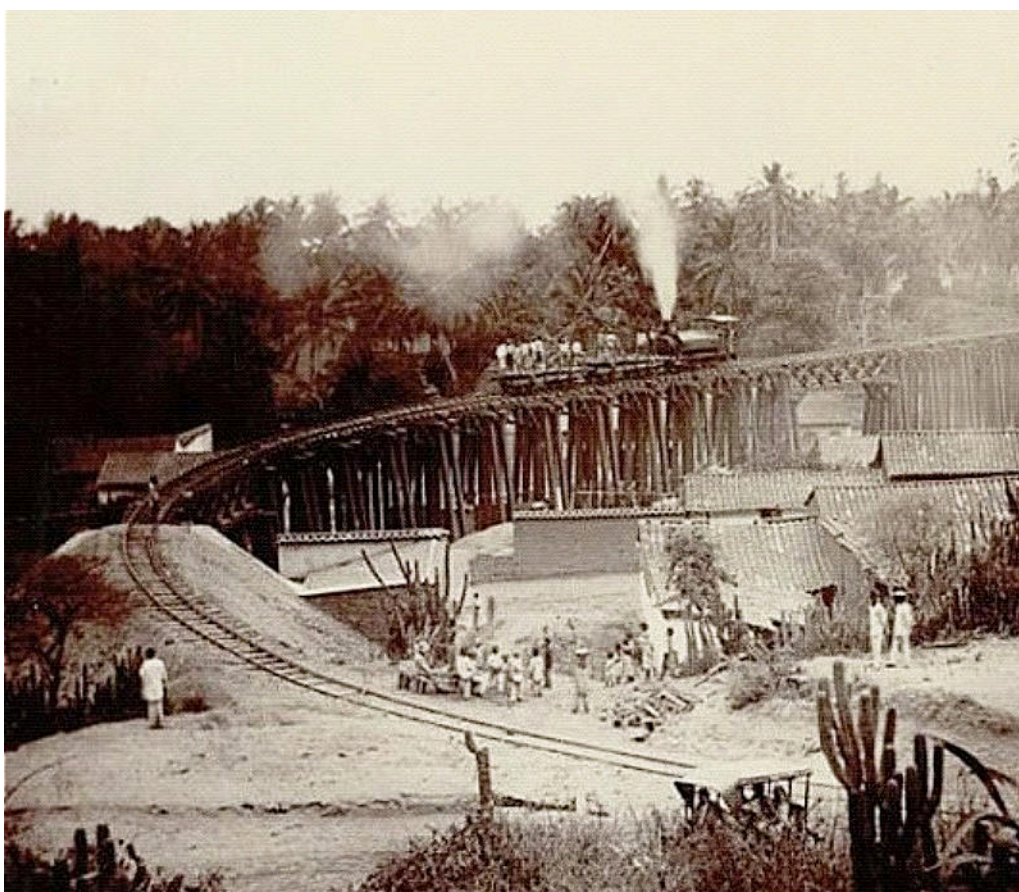
This is the first evidence seen for this railway having had its own steam locos.



This photo supposedly shows a steam loco and single wagon at Maiquetia. No further information is known and I have no clue as to the nature of the engine or its owner.



This photo, though very much touched-up, supposedly shows a train at Maiquetia. However, the loco is clearly from the *FC La Guaira á Caracas*, suggesting that their rather larger machines sometimes worked over the *FCMM*.



This photo supposedly shows a train on the Viaducto de Paraiso Maiquetia. The precise location has not yet been ascertained but it was on the *FCLGC*. The loco appears to be one of La Guaira port's Hunslet 0-6-0STs dating from 1886. By 1893 this viaduct had been replaced by a steel girder structure.

10.4.6 *El FC de La Vela a Coro*

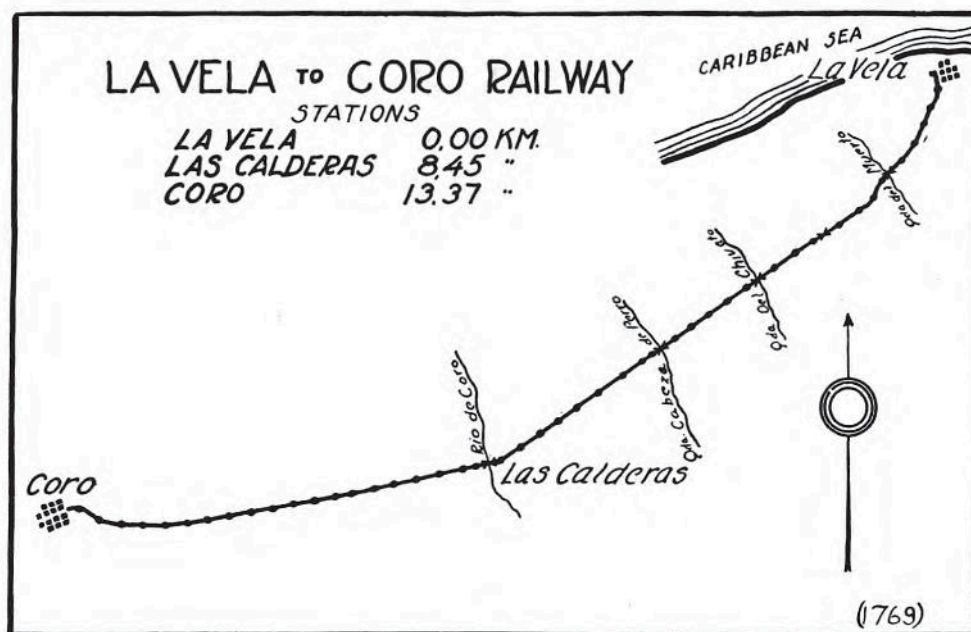
1897-1957



Background

3' 0" gauge. 13.4 km. Concession first granted to Sr. Manases Capriles, then taken over by a US firm which completed construction in 1896, then went bankrupt. Operated by an American syndicate until 1909, then taken over by government. In 1925 had two locos.

In 1914 an extension to the mining aarea of El Isiro was being considered.



0-4-0ST d/w ?, cyls. ?, built by Porter? in ?

Ordered for ?

1

w/n ?

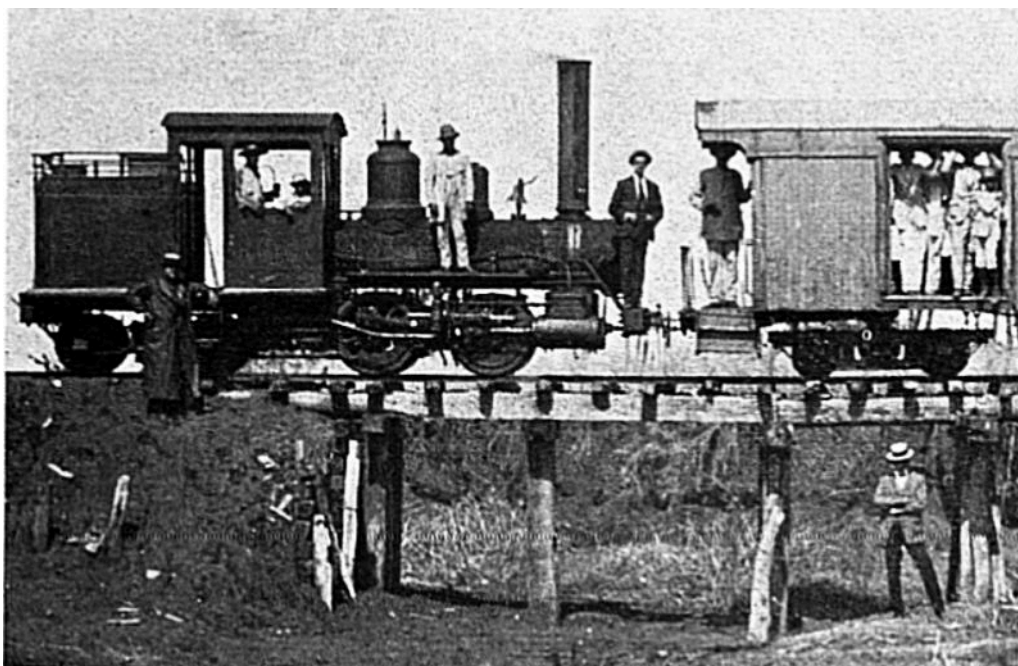


This photo, and others, were taken in 1897 during the construction period. The engine was probably by Porter.

0-4-4T d/w 36", cyls. 9x14", built by Baldwin in 1898

Ordered via Jacob Baiz (?) for Coro & La Vela RR & Improvement Co. BLW class 08-11 1/3 C no. 12. Spec. is in vol. 21 p 163. Mark on tank was to be 'C. & L.V.R.R. & I. Co.' Radley & Hunter stack.

2 'SIMON BOLIVAR' w/n 15833



This photo, supposedly taken in 1916, specifically was captioned as showing the loco 'BOLIVAR'. Note that a straight stack has replaced the Radley & Hunter spark arrestor.

0-4-0ST d/w ?, cyls. ?, built by ? in ?

Ordered for ?

? w/n ?

Replacement boiler 1910

The 1910 *MOP Memoria* states that a replacement boiler for one of the locos had been purchased in the USA that year [16 1910 pd312 p122].

1914 memoria

The total number of locos was shown in a table in 1914 as one [16 1914 pd514 p104a].

1915 memoria

"1 locomotora, hace anos fuera de servicio, de 8 toneladas de peso. completamente inservible.

1 locomotora, en parte desarmada, de 16 toneladas. Esta locomotora, ya sea por que nunca estuvo en manos de quien bien entendiera de mecanica, ya por el descuido en su limpieza y engrasaje, que hicieron desgastar algunas de sus piezas de un modo increible, tiene imprescindible necesidad de ser enviada at Dique Astillero. En dicho Dique, hoy se funden algunas de sus piezas; pero como las piezas deterioradas que se enviaron de Coro, muchas de ellas han perdido su forma primitiva, casi por adivinacion se funden de nuevo. El Ingeniero Jefe, doctor Fernando Capriles, me las enseno personalmente, en Puerto Cabello. De modo que, para que se cuente con un servicio util de dicha locomotora, debe ser reparada totalmente, en un taller de mecanica, y por mecanicos autenticos." [8]

0-4-0ST d/w ?, cyls. ?, built by ? in ?

Ordered for ?

'19 de DICIEMBRE'

w/n ?



Fig. 37-1. Ferrocarril de Coro a La Vela. Vista de "la nueva" locomotora, tomada en La Vela, en 1916.

The caption says that this was a 'new' locomotive in 1916.



The caption in the 1918 memoria suggested that this was the engine **'19 de DICIEMBRE'**.

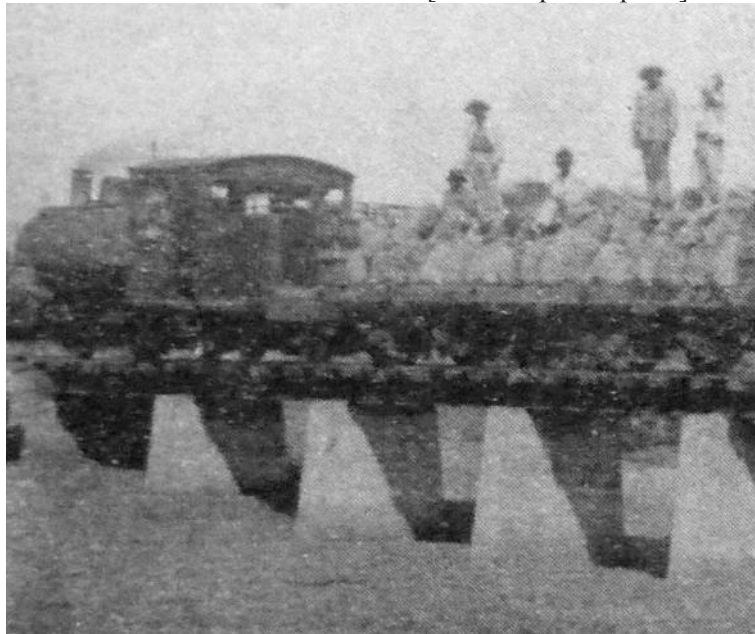


A poor photo supposedly taken in 1928, but probably of this same engine.

1916 memoria

The 1916 *MOP memoria*, in a report dated January 1917 has the following mentions of locomotives: *La locomotora "19 de Diciembre" ha rendido un servicio normal y está en perfecto orden y no ha tenido que sufrir ninguna reparación en el año que viene utilizándose. Se está atendiendo activamente a la reparación de la locomotora "Bolívar", y para fines del mes entrante empezará a prestar sus servicios. ...*

Se ha pintado recientemente la locomotora "19 de Diciembre" y también se ha dado principio a la pintura del material rodante así como el puente de hierro sobre el río de Coro. [16 1916 pd267 p273].



This photo taken around 1930 shows another O-4-4T or similar, this one carrying a saddle tank.

The fleet in 1919

The 1919 memoria of the *Ministro de Obras Públicas* includes an inventory of the equipment on this railway. It explicitly lists the locomotives as ‘19 de DICIEMBRE’ and ‘BOLIVAR’.

1922 memoria

“Locomotoras.—Las dos locomotoras con que cuenta este Ferrocarril, prestan servicio regular lo que ha penultimo observado el itinerario con puntualidad. A la locomotora "19 de diciembre" se le hizo un boggy de dos ruedas, con lo que se obtuvo una gran disminución en los fuertes movimientos o cabeceos que tenia. Ambas locomotoras se reparan y revisan cuidadosamente con la mayor frecuencia. Pistón todas bien organizadas.”

1936 total

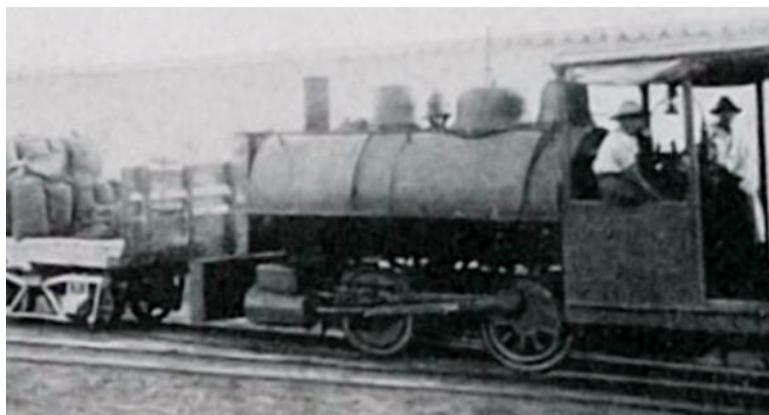
The 1936 *Supplement to the World Survey of Foreign Railways* gives the no. of locos on this railway as 2.



The remains of an unidentified US-built 0-4-0 from this railway are preserved in the Caracas transport museum. This is not the engine pictured on the previous page as the boiler is mounted a good lower on that one. This one has nine-spoked wheels.

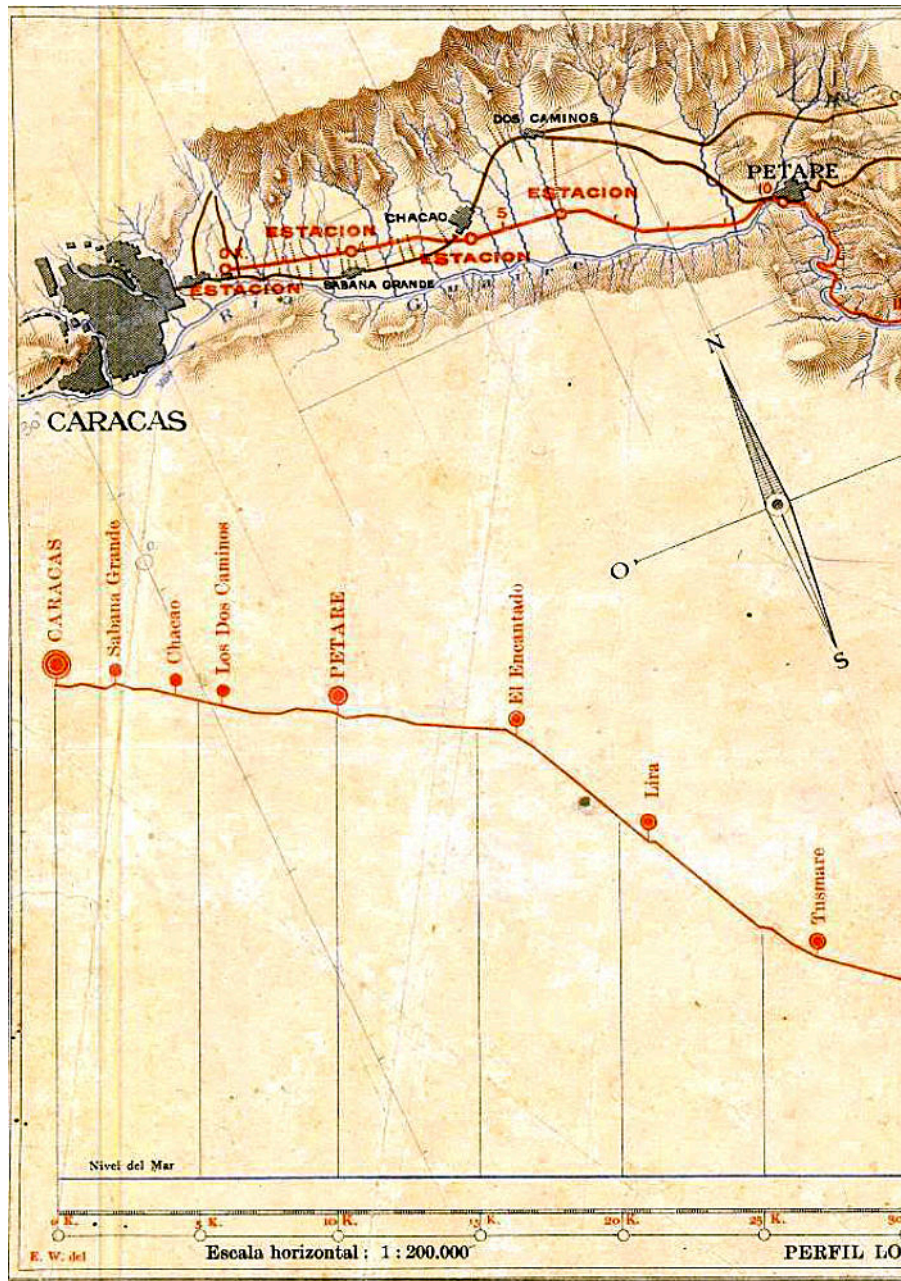


These two boilers survive at the Museo Alberto Henríquez in Coro. Although both have domes over the firebox, they are not identical. The usual caveat about not all boilers originating on locomotives needs to be made, but it is possible that they were from the railway.



Another image of an unidentified loco, again taken in 1928. This might well be the same engine as that on the previous page, to judge from the very small and narrow chimney, but this appears to be an 0-4-0ST. This loco shows eight-spoked wheels.

10.4.7 *El FC del Este* Caracas to Petare 1859-1864



This map shows the northern end of the *FC Central*, which took over the role of the much earlier but unsuccessful *FC del Este*. However, it is not yet known whether they followed precisely the same route to Petare.

Background

Despite the social unrest and conflict of the period, in 1859 the government let a contract for a short distance railway from urban Caracas eastward to the nearby town of Petare. A loco was ordered from Europe and test runs made in July 1861 [11]. The route was completed to Sabana Grande, and eventually to El Recreo. This was only 3,280m. It operated until December 1864 but was then abandoned. An eye-witness report tells of abandoned “locomotives and wagons” being visible. It has also been said to have been of narrow gauge, but no details are known. The full text of the report in source [11] is reproduced in Appendix 2.

??? d/w ?, cyls. ?, built by ? in 1860-1?

Ordered for

?

w/n ?

10.4.8 Caracas Antimano railway

1886-

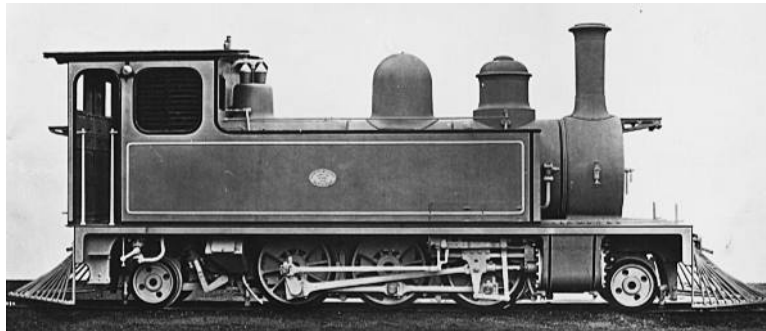
Background

Gauge 3' 0". A concession was granted to Sres. Rivas and Henrique to link the capital with routes to El Valle, Sabana Grande, Petare and Antimano, on 5th December 1881. The first route to Altimano opened 27th April 1887, 8 kms long. The inaugural train from Caracas, on that day, was hauled by the Nasmyth Wilson loco '**CARACAS**', whilst a following train with lesser dignitaries was pulled by '**ANTIMANO**' [15]. No sooner had the line opened than the plans for the *Gran FC de Venezuela* overtook this railway. The government transferred its investment and assets in the original Antimano line to the new company, in exchange for shares or bonds. Presumably the original trackbed was reused, with alterations where necessary for the wider gauge.

2-6-2T d/w 40", cyls. 14x20", built by Nasmyth Wilson in 1885

Ordered for Caracas - Antimano Railway.

1 'CARACAS'	w/n 296	) Transferred and regauged to 3' 6"
2 'ANTIMANO'	w/n 297	) for use on the <i>Gran FC de Venezuela</i> .



FC Caracas Antimano no. 1 '**CARACAS**', by courtesy of Richard Pelham.

10.5 2' 6" or 75cm gauge public railways

10.5.1 *El FC de Carenero* (1st generation)

1885-1889?

Then regauged to 3' 0", see section 10.4.2 for later loco history

Background

Original concession granted to Lázaro Puig Ros in June 1884 for a railway from Carenero south-east along the coast to Río Chico, and immediately transferred to the *Cía. Anonima de navegación Fluvial y Maritima de Barlovento*. This was for a railway of 750mm gauge, which apparently opened in March 1885 with the two Dick Kerr locos listed below, as the second, **2 'RIO CHICO'**, hauled the opening day train. The majority of the historical information in this paragraph has been very kindly provided by Chris West.

Construction had been begun by the *Cie. Generale de Railways á Voie Etroite SA*, but after they withdrew the Venezuela Public Works and Credit Co. took over.

0-6-0T d/w 25½", cyls. 9x12", built by Dick Kerr in 1884-5?

Ordered for ?. The wheel diameter listed here may have been muddled up with the track gauge of 2' 5½". Also, Russell Wear's article on *The Locomotive Builders of Kilmarnock*, IRR no. 69, January 1977, gives the cylinders as 7x12".

1 'CARENERO' w/n ?

2 'RIO CHICO' w/n ? Enlarged coal bunker mentioned in 1885 railway sale agreement.



A photo of no. 1 'CARENERO', from the *Industrial Railway Record* issue no. 69.

ENGINE No. 1.—“CARENERO.”

Six wheels coupled.

Diameter of cylinder 9 in.; length of stroke 12 in; diameter of wheels 2 ft. 1½ in. Wheels are of cast iron with steel tyres and axles 3¼ in. diameter. Total length of wheel base 10 ft. 8 in. Weight of engine 8 tons.

BOILER.

Length of boiler 8 ft. 5 in.; diameter of barrel 2 ft. 3¼ in.; containing 38 tubes 1¾ in. outside diameter 5 ft. 9 in. long and made of brass; working pressure 125 lbs.; copper fire box 2 ft. 2 in. by 1 ft. 8 in.

WATER TANKS.

Length 6 ft. 5 in.; width 0 ft. 11 in.; depth 1 ft. 11 in.

COAL BUNKERS.

Length 3 ft. 0 in.; width 0 ft. 11 in.; depth 2 ft. 0 in.; total weight of engine 8 tons.

ENGINE No. 2.—“RIO CHICO.”

Six wheels coupled.

Diameter of cylinder 9 in.; length of stroke 12 in; wheels and wheel base the same as engine No. 1.

BOILER.

Length of boiler 8 ft. 5 in.; diameter of barrel 2 ft. 3¼ in. Copper fire box 2 ft. 2 in. by 1 ft. 8 in.

WATER TANKS.

Same as engine No. 1.

COAL BUNKERS.

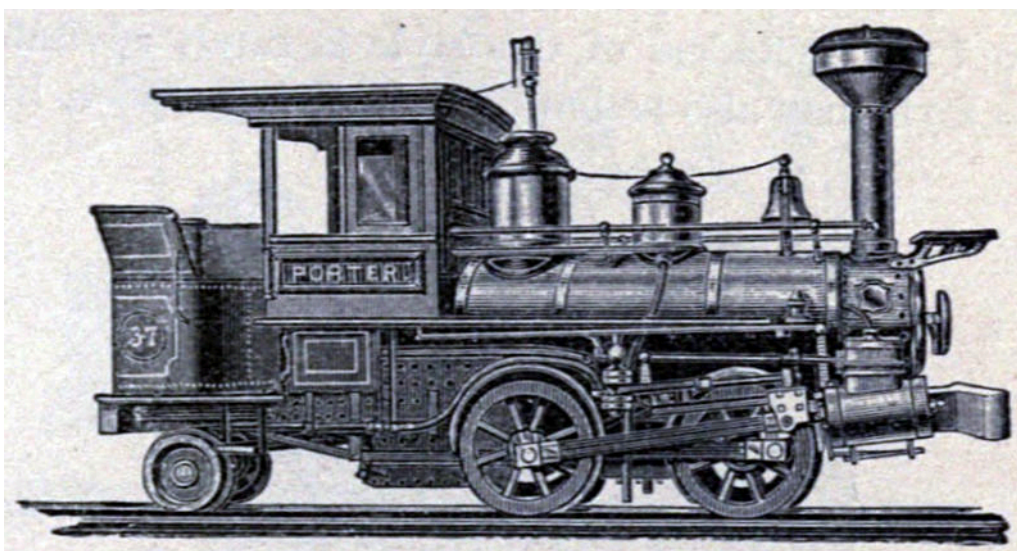
Length 3 ft.; width 11 in.; depth 3 ft. These have been enlarged for carrying more fuel.

Part of the inventory contained in the 1889 agreement between Nicholas Schotborgh and the Carenero Railway & Navigation Co. [17].

0-4-2T? d/w 33", cyls. 9x14", built by Porter in 1886

Ordered via José S. Molins.

- | | | |
|----------------------|---------|---|
| 3 ‘ORITUCO’ | w/n 771 | Driving wheelbase 4' 6", total wheelbase 13' 10". To be shipped on <i>SS Valencia</i> , Pier 36 East River, New York. “Tank over rear truck.” |
| 4 ‘PANAQUIRE’ | w/n 785 | Driving wheelbase 4' 6", total wheelbase 13' 0", so not quite identical. Ordered as duplicate of no. 771, except “no casings for guides and links”, ie. presumably meaning that the first engine had motion covers. |



It seems likely that these Porter engines were 0-4-2Ts. This artist's impression from the 1889 Porter catalog is likely to have been similar.

ENGINE No. 3—"ORTUOCO."

Four wheels coupled. Weight 12 tons. Length of wheel base 7 ft. 3 in.

Diameter of cylinder 9 in.; length of stroke 14 in.; diameter of wheels 2 ft. 9 in.; diameter of bogie wheels 1 ft. 7½ in.; Wheels are of cast iron with steel tyres.

BOILER.

Length of boiler 11 ft.; diameter of barrel 2 ft. 6 in. contains 65 iron tubes 1¾ in. outside diameter 7 ft. 3½ in. long. Working pressure 125 lbs. Iron fire box 3 ft. 6 in. by 1 ft. 8 in.

TANK.

Length 3 ft.; width 5 ft. 9 in.; depth 2 ft. 3 in. All fuel placed on the top of the tank.

ENGINE No. 4—"PANAQUIRE."

Weight 12 tons.

BOILER.

Same dimensions as to size and tubes apply here as to No. 3 Boiler.

TANK.

Same as No. 3.

Part of the inventory contained in the 1889 agreement between Nicholas Schotborgh and the Carenero Railway & Navigation Co. [17]. Note that the wheelbase mentioned does not correlate with those listed on the previous page.

A change of ownership and subsequent regauging

A Carenero Railway & Navigation Co. Ltd. was registered in London in 1888. The railway and associated shipping line on the Río Tuy and the nearby coastline had been bought from the above-mentioned *Cía. Anonima* by Nicholas John Henry Schotborgh of London, and was sold to the new company in June 1889 [17]. The company was to extend the railway from San José to Altagracia, on the 3' 0" gauge, with the existing line also relaid to the new gauge, though

there is one incongruous mention of metre gauge in the agreement. Page 28 states "So soon as the gauge is altered... the Contractor [i.e. NJH Schotborgh] may remove and dispose of the existing rolling stock on the open line." However, the CR&N Co. went into liquidation in 1895, being taken over by a Dutch company. Chris West suggests that there had always been a Belgian or Dutch element in the company's investors, so possibly the liquidation was merely a restructuring.

10.5.2 *Tranvía de Bella Vista*

Background

Gauge 2' 6" or maybe 75 cm. This was one of several early tramway companies in the city of Maracaibo, having been set up to operate a steam-worked route north from the city centre along the Avenida 4 Bella Vista for about six or seven kilometres to the Bella Vista suburb. Apparently the line was electrified in 1914, which makes the new purchases of that year listed below into a bit of a puzzle.

0-4-0ST d/w ?, cyls. 10x14", built by Porter in 1892

Ordered by S. H. Payne & Son, NYC, for *Tranvia de Bella Vista*.

‘ZULIA’

w/n 1432



0-4-0 d/w ?, cyls. 7x12", built by Porter in 1897

Ordered by S. H. Payne & Son, NYC, for *Tranvia de Bella Vista*.

4 ‘?’

w/n 1778

5 ‘?’

w/n 1779

0-6-0T d/w 28½", cyls. 10x14", built by Baldwin in 1894

BLW class 6-14D no. 33. Ordered via Julio F. Sorzano for *Tranvia Electrica de Bella Vista*, Venezuela. Steam tested 14th May 1894, despatched 6th June 1894. Cost \$3195.

4 ‘VENEZUELA’

w/n 14014



Locomotive painting styles

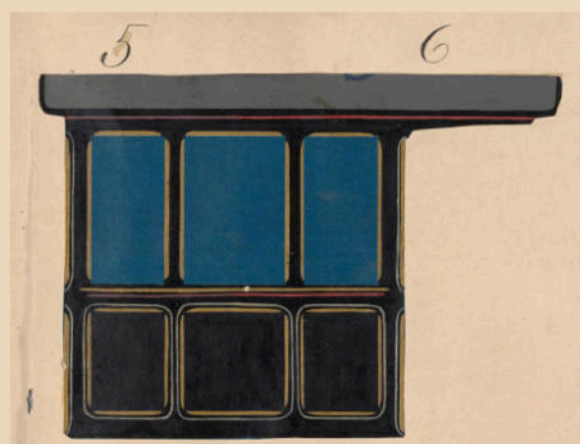
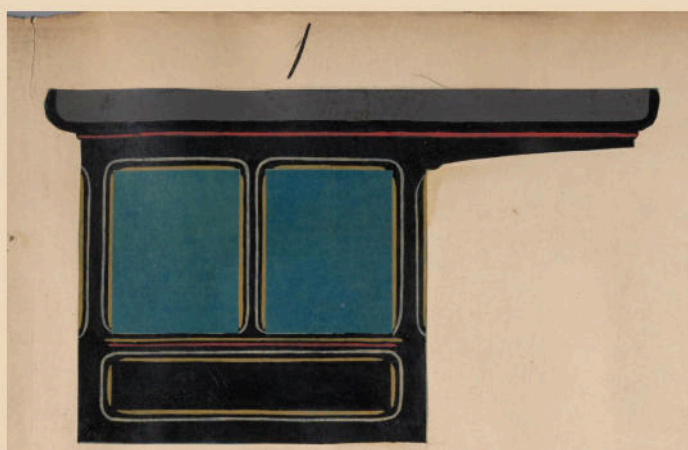
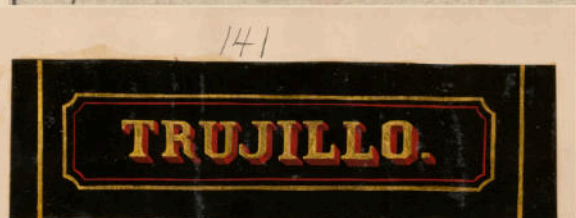
The following images were gathered from the Baldwin style books conserved at Stanford University and available online at <https://purl.stanford.edu/fb584yc9195> and <https://purl.stanford.edu/jw230zc7560>

These were the painting styles in use on the *Gran FC de Tachira*, the *Gran FC de la Ceiba*, and the *Tranvia de Bella-Vista* in 1893-4, when locos **1 'TACHIRA'**, of the former line, **1 'TRUJILLO'** of the La Ceiba route,, and **4 'VENEZUELA'** of the Bella-Vista tramway, were built. The summary lists at the top of the page apply as follows:

Style 272, for the Gran FC de La Ceiba,
style 273 for the Tranvia de Bella-Vista,
and style 274 for the Gran FC de Tachira.

By following along those lines, the particular styles for cabs, tanks, sand-boxes, driving wheels and tenders can be identified.

<i>Style</i>	<i>Cab.</i>	<i>Cylinder</i>	<i>Tank</i> <i>ON</i> <i>Boiler</i>	<i>Sand</i> <i>Box</i>	<i>Dril.</i>	<i>Tender</i> <i>Tank</i>	
272	6	6	141	19	20	—	10-22 E 14 JULIO F. SORZANO
273	1	6	142	19	20	—	6-14 D 33 JULIO F. SORZANO
274	1	6	142	19	20	143	6-16 D 30 JULIO F. SORZANO



0-4-0T d/w 24", cyls. 7x12", built by Porter in 1914

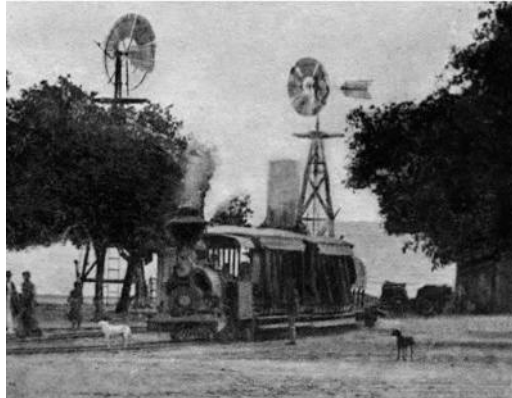
Ordered via Wonham Inc. for *Tranvia de Bella Vista*.

7 'ZULIA'

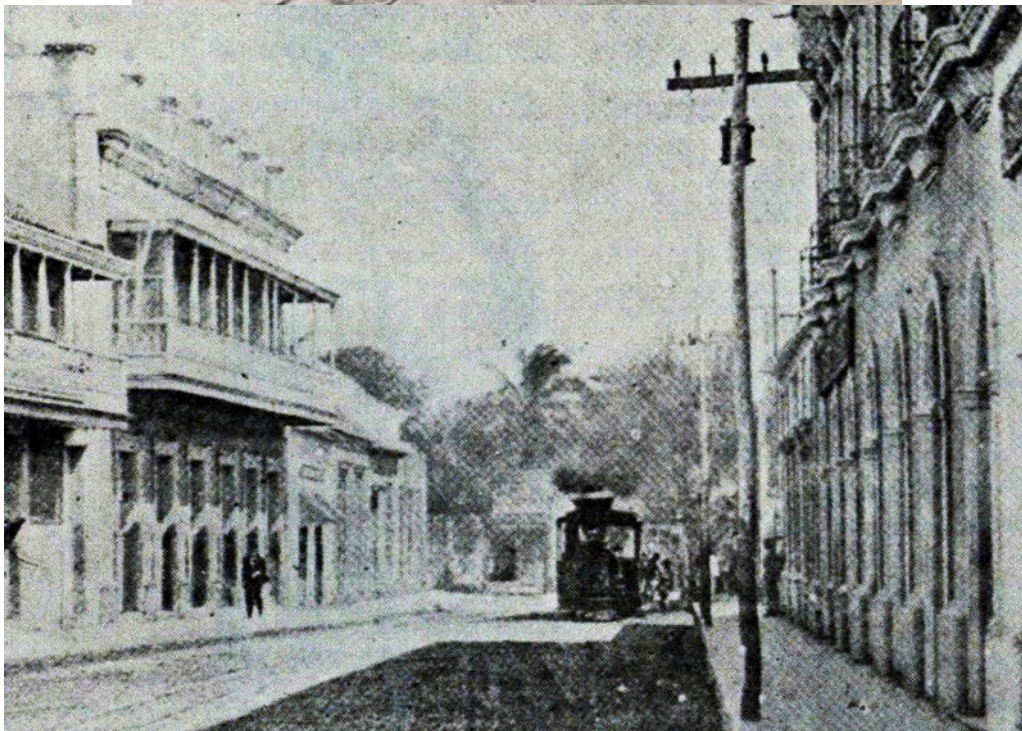
w/n 5526

? '?'

w/n 5527



Whilst not confirmed as one of the two engines listed immediately above, this image from the late Allen Morrison's collection certainly seems to show a Porter product.



A view looking east along the Calle del Comercio.

10.6 A 68cm gauge public railway

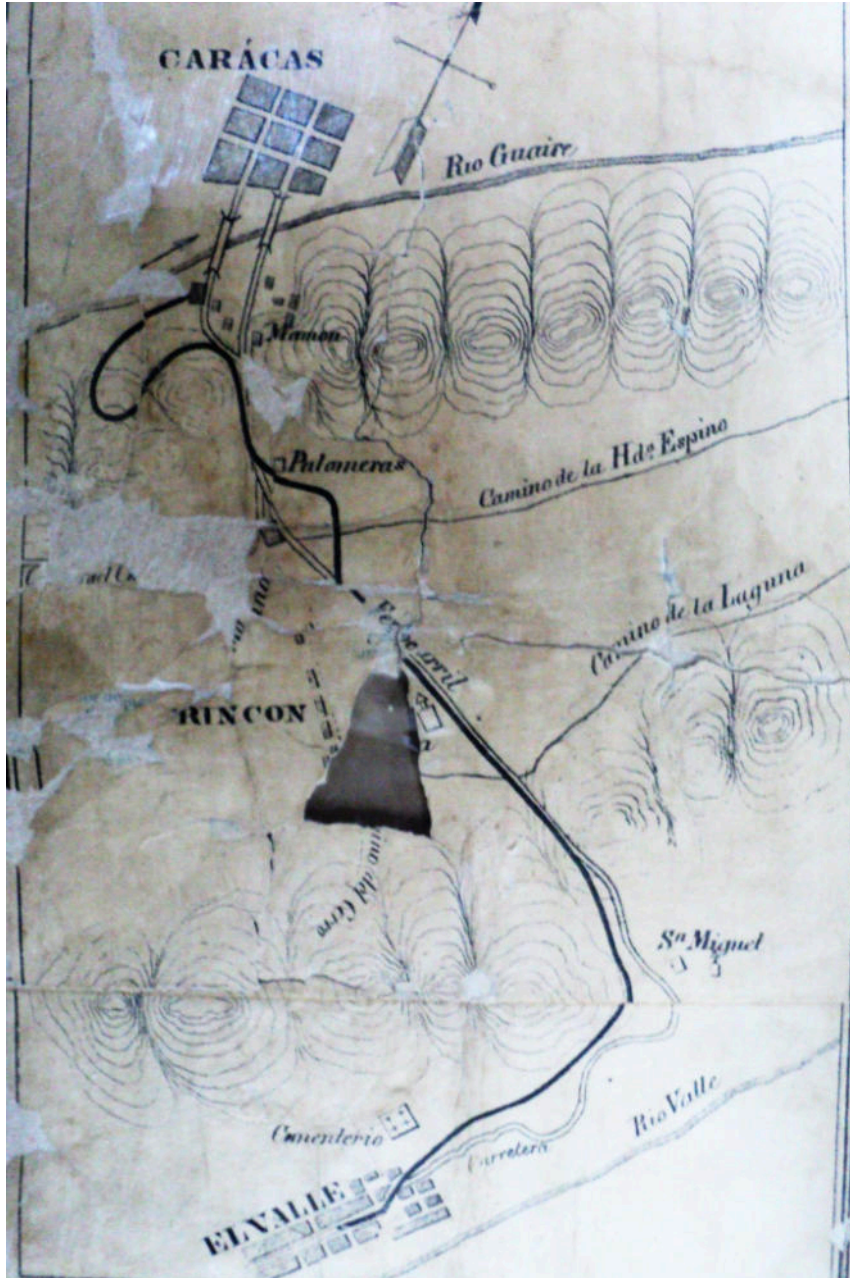
10.6.1 *El FC del Sur*

also known as *El FC del Valle*

1883-1907

Background

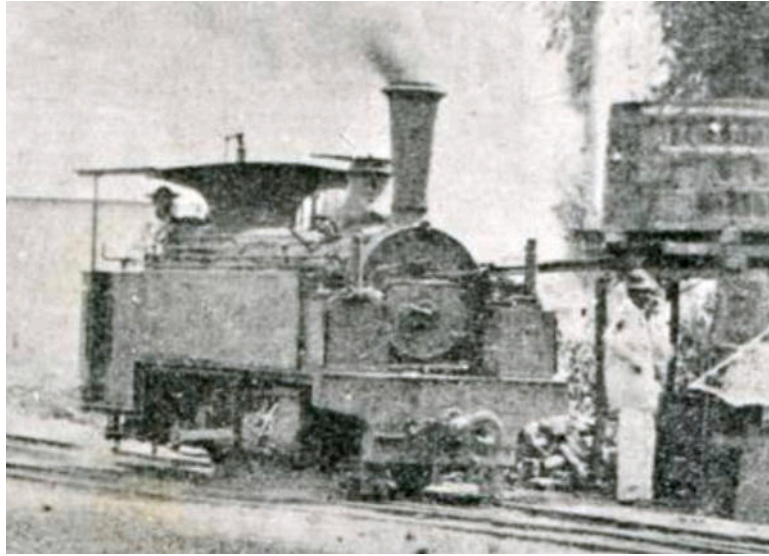
Gauge 2' 2½" or 68cm, though the Cockerill and Tubize lists show the locos as built to 75cm gauge. Opened in September 1883 [13]. Caracas to El Valle, 4½ miles. "Built with French materials and rolling stock".



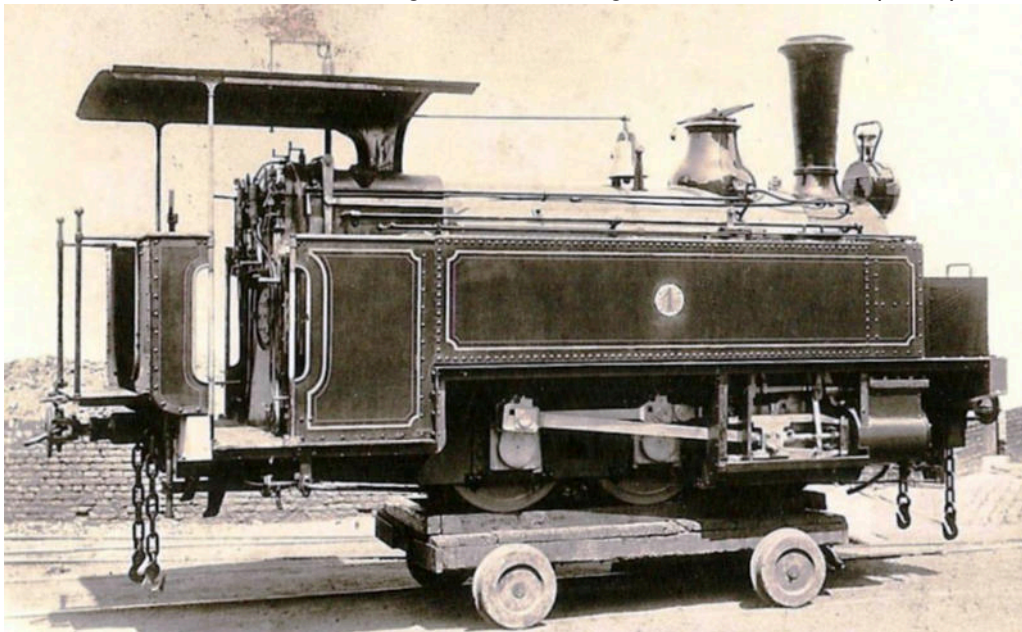
0-6-0T d/w ?m cyls. ?, built by Tubize under sub-contract to Cockerill in 1883

Ordered via *Henrique et Cie.*, Venezuela.

- | | |
|---|---------------------------------|
| 1 | w/n Tubize 563 / Cockerill 1387 |
| 2 | w/n Tubize 564 / Cockerill 1388 |



A photo published in *El Cojo Ilustrado*, edition of 1st August 1894, showing one of the Tubize locos running round and taking water at the end of a journey.



A Tubize builder's photo appears to show one of this pair of engines balanced on a four-wheeled trolley for movement within the works, no doubt because of their unusual gauge.

A third loco?

The names or nick-names of 'Chispita', 'Mascota', and 'Pepita' have been noted, which suggests that there will have been a third engine. However, no other obvious possibilities have been found in the Tubize or Cockerill lists.

Later history

For the later history of this railway we can't do better than quote the late Allen Morrison of New York, the true doyen of Latin American tramway researchers: "The first electric tramways in Caracas developed in an unusual way. Instead of electrifying its horsecar lines, as was the procedure in most cities, Caracas electrified two of its steam railroads. In the early 1900s Edgar Wallis, E. H. Ludford and Albert Cherry, executives of the English telephone company in Caracas, acquired control of *Tranvía Caracas*, *Tranvía Bolívar*, *Ferrocarril del Sur* and *Ferrocarril Central* and registered new companies in London. Wallis's new United Electric Tramways of Caracas hired the English firm J. G. White engineer and ordered four electric trams, numbered 1-4, from John Stephenson Co. in New York. Cherry hired the German firm *Allgemeine Elektrizitäts Gesellschaft* ("AEG") to electrify the *Ferrocarril Central*. Its first electric cars

were electrified steam railway coaches.

Electrification of the *Ferrocarril del Sur* to El Valle and the *Ferrocarril Central* to Petare began in 1906. Perhaps to match the gauge of the *Ferrocarril Central*, J. G. White chose 1067 mm (42 in) gauge for its new electric tramway system and added a third rail to the El Valle line so that steam operation could continue during reconstruction. *Tranvías Eléctricos de Caracas* began testing its Stephenson cars in October 1906 and inaugurated the city's first electric tram service, between Las Flores and El Valle, on 15 January 1907 .” and “By February 1908 TEC had extended the El Valle line across the Iron Bridge to Plaza Bolívar and electrified all the lines to the railroad stations – including Santa Rosa station, where *Ferrocarril Central's* electric line began.”[13]

10.7 2' 0" gauge public railways

For the first 3' 0" gauge iteration of this railway 1866-1874 see section 10.4.1

10.7.1 The Quebrada Railway, Land & Copper Co. Ltd. and the South Western of Venezuela (Barquisimeto) Railway Co. Ltd., The Bolivar Railway Company

1877-1896

El Ferrocarril Bolivar

1877-1954

Background

The Quebrada Railway, Land & Copper Co. Ltd. Related to ? *FC Sud-Oeste de Venezuela* and *FC Tucucas a Minas de Aroa*. 218.8 km. Note that the railway was often called the Bolivar Railway even before the government take-over. Opened to Aroa in 1877, on to Barquisimeto in 1891 and to San Felipe / Palmasola in 1916. All closed 1960. For a description of a trip on the line see *The Intermountain & Colorado Catholic* of October 5th 1901.

In 1914 proposed extensions to Carora, to Quibor and El Tocuyo, to Yaritagua and from San Felips to Chivacoa were mentioned.

0-6-0T? d/w ?, cyls. ?, built by Canada Works in 1873 and 1875

Ordered for Bolivar and South West Venezuela.

1	w/n 256	Boiler explosion in 1917, see below.
2	w/n 257	
3	w/n 258	
4	w/n 259	
5	w/n 262	
6	w/n 263	

0-6-0T d/w ?, cyls. ?, built by Canada Works in 1875

Ordered for Quebrada Railways.

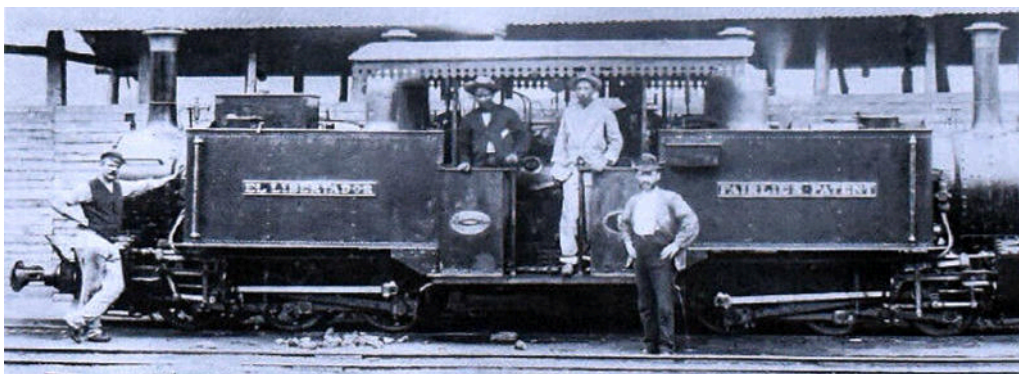
?	w/n 261
---	---------

0-6-6-0T Fairlies d/w 30", cyls. 9x14", built by R. & W. Hawthorn in 1876 and 1890

First two ordered via Fairlie Engine Co. for Bolivar Rly. Third one ordered via Mathieson & Co. for Quebrada Railway, was delivered June 1889. Tanks 650 gallons.

7 ¹ 'EI PRESIDENTE'	w/n 1689	Presumably withdrawn by 1913 when this number was re-allocated.
8 ¹ 'EI LIBERTADOR'	w/n 1690	Presumably withdrawn by 1913 when this number was re-allocated.
15	w/n 2162	

The 1910 MOP memoria [16 1910 pd251 p091] in a discussion about steep gradients, mentions in passing: *y en el ferrocarril de Tucacas a las Minas de Aroa hay cerca de dos kilómetros con una pendiente de 5,27%, en los cuales las maquinas usadas, del sistema Fairlie, no trabajan sino por adherencia.*



0-6-0 d/w 24", cyls. 10x12" oc, built by Black Hawthorn in 1877, 1882 and 1889

BH list says ordered by Matheson & Co. for Bolivar Rly.Co, 701 direct to Bolivar Rly., and 974-5 via Matheson & Co. for Quebrada Rly. 4-wheeled tenders.

9¹	w/n 425	
10¹	w/n 426	
11	w/n 701	
13	w/n 974	Loco w/n was 974A and the tender 974B.
14	w/n 975	Loco w/n was 975A and the tender 975B.

Spare boilers were ordered from Hawthorn Leslie in 1920 and 1922 for a loco BH (presumably Black Hawthorn) 975 but presumably could have been fitted to any of this batch, also one in 1923 for BH 701.

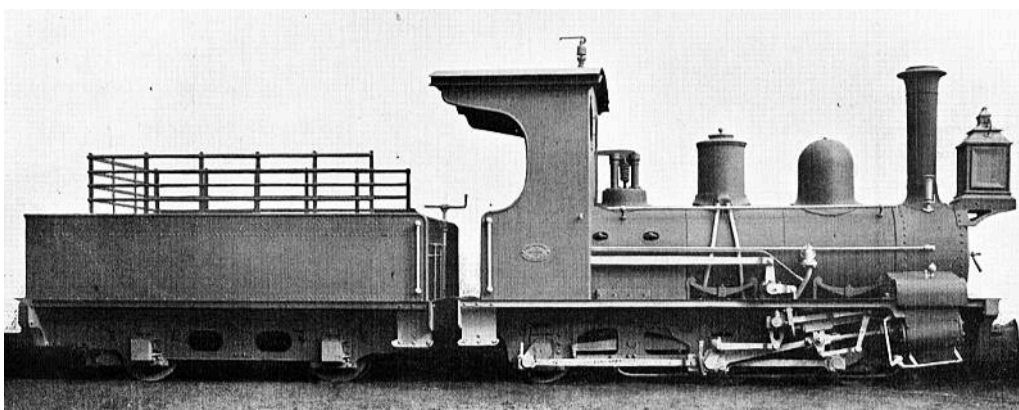


Photo kindly provided by Chris West.

Total number of locos in 1882

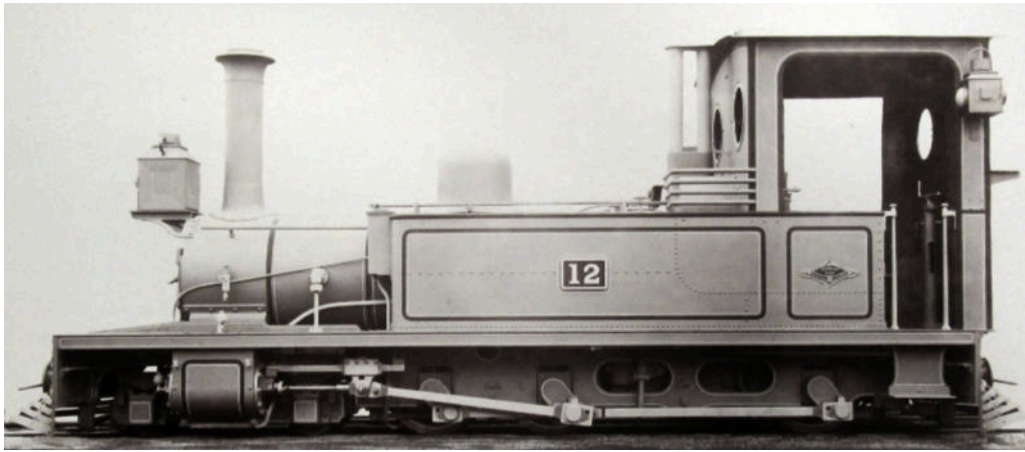
The Quebrada Railways went bust in 1882. The total number of locos given in the liquidator's report that year was nine, whereas the number listed above is eleven or twelve depending on whether the 1882-built Black Hawthorn engine had yet arrived at that point. Two of the locos amongst those mentioned by the liquidator were apparently in poor condition but no details were given.

The 1884 company annual report states that nine locos were owned in both 1882 and 1883. The following year's report likewise gives nine as the total for 1884, as does the 1886 report for 1885.

4-6-0T d/w 30", cyls. 12x18", built by Dübs in 1887

Ordered for Quebrada Land & Copper Co.

12	w/n 2314
-----------	----------



0-6-2T d/w 30", cyls.13x18", built by Kitson in 1888

Ordered for South Western Railway of Venezuela.

1 (*FCSOdV*) w/n 3122

2 (*FCSOdV*) w/n 3123

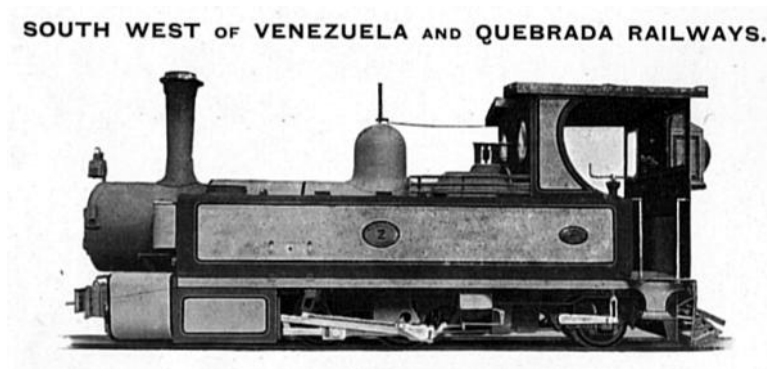


Image found in a Kitson locomotive catalogue.

New locos in 1888

The Quebrada RL&C Company annual report for the year 1888 stated that four new locos had been ordered and that one had so far arrived. These four presumably included the Kitson 0-6-2Ts listed above, and possibly the Hunslet locos mentioned below. Given that those four engines took the running numbers **1-4**, perhaps we can assume that the Canada Works locos originally bearing those numbers had been withdrawn by then, though clearly at least one was still in use in 1917 when it suffered a boiler explosion.

Hughes / Falcon locomotive error

James Lowe's book *British Steam Locomotive Builders* states, page 343, that Falcon built 4-4-0s for the Bolivar Railway between 1874 and 1888.

0-6-2T d/w ?, cyls. ?, built by Hunslet in 1890

Ordered for *FC del Sud Oeste de Venezuela*.

3 w/n 505

4 w/n 506

0-6-2T d/w 30", cyls. 13x18", built by Kitson in 1892

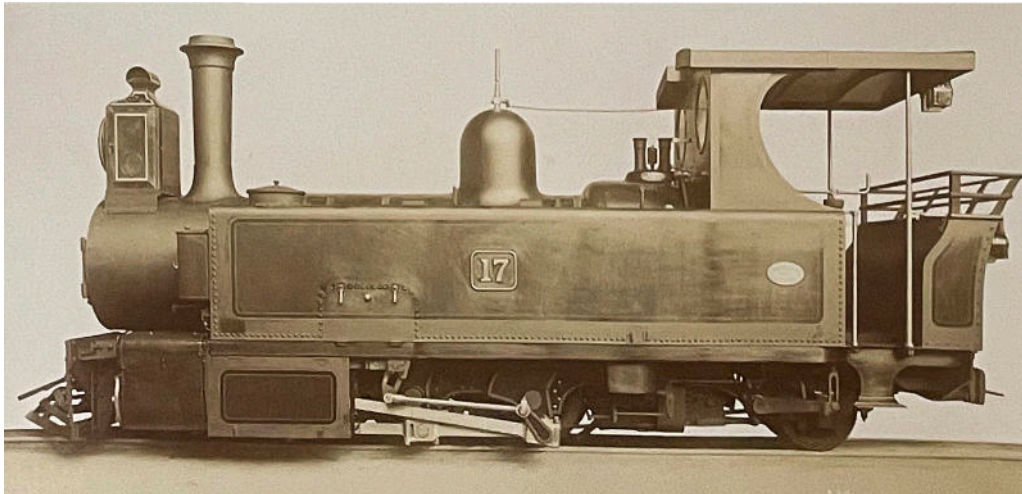
Ordered for Quebrada Railway & Copper Co., later to Bolivar Railway.

16 w/n 3502

17 w/n 3503

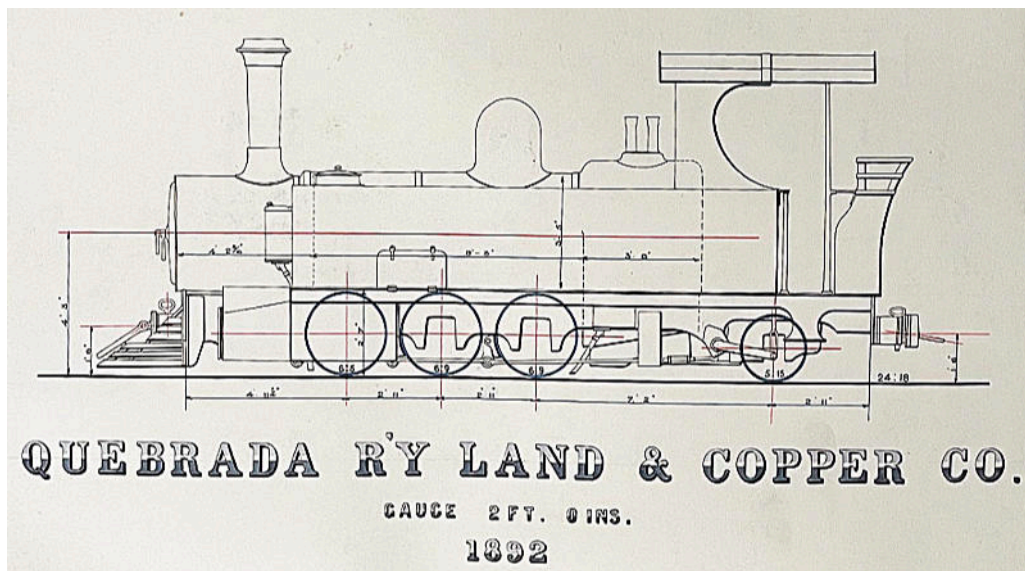
A spare boiler was ordered from Hawthorn Leslie by the Bolivar Rly. Co. in 1926, supposedly for no. **16**, but whether

it was really for this engine is unconfirmed.



This photo and diagram are from the Kitson albums at the SLS Library.

Note the rear frame extension and bunker when compared to the photo of no. 1 above.



1895 report

Page 459 of the 1895 annual *memoria* lists twelve locomotives but in a rather opaque fashion.

mente empaquetados con este material.

Puentes

Entre los kilómetros 38 y 56 han sido renovados completamente 13 puentes, con estribos y pilares de concreto de cemento, sustituyendo estos las columnas de hierro que antes tenían.

En 6 de estos puentes se ha puesto vigas de hierro nuevo de 7,32 metros de largo y en uno de 11 metros, dando respectivamente 6,10 metros y 9,76 metros de luz entre estribos.

Otros puentes han sido reforzados y trabados para pasar locomotoras de más peso en caso que lo requiera el tráfico.

Material rodante

	Número	Peso Toneladas	Clase	Observaciones
Locomotoras..	1	33	Jauque	Sistema Fairlie Id Id
	1	24	Id	
	2	24	Id	
	1	21	Id	
	2	19	Jeuder	
	3	18	Id	
	1	17	Id	
	1	13	Jauque	
Total.	12			

The typesetter has rendered the words Tanque and Tender, as Jauque and Jeuder respectively.

Nevertheless, we can see from this table that there were twelve locos in the fleet, six of them tender engines and six tank locos. Two were Fairlies, though three had been supplied. Four other tank locos were in service, out of fourteen originally supplied.

Only five tender locos are listed above, so where did a sixth come from?

The fleet in 1896

The MOP memoria for 1897 [16, 1897, p320] states the following, but the table mentioned was not found:

El material rodante.

De ambas líneas está demostrado en un cuadro que va adjunto. En los talleres de Pueblo Nuevo, 4 locomotoras fueron renovadas en el curso del año, y los coches y wagones se repararon debidamente para su buena marcha.

Aroa : diciembre 31 de 1896,

A. J. González.

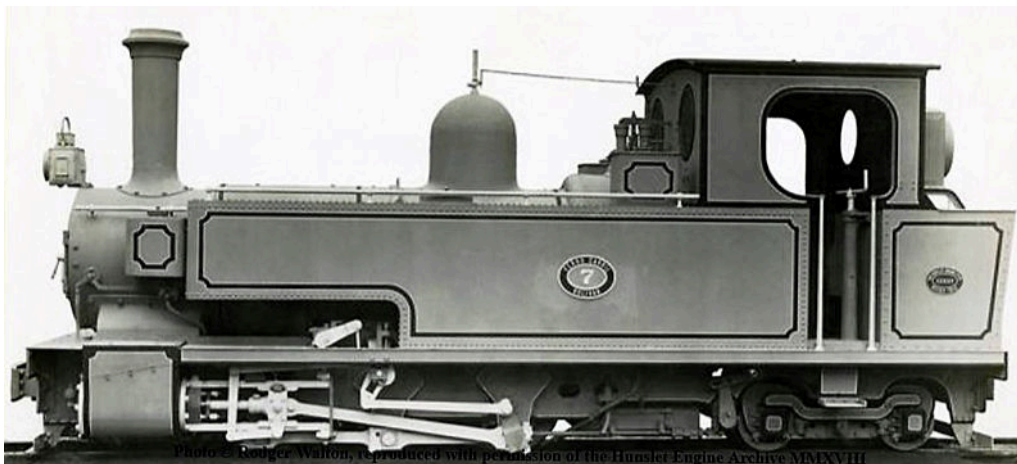
The fleet in 1898

The MOP memoria for 1899 [16, 1899, p158] has a table stating that nine engines were in service on the Bolivar section during 1898 and four on the Barquisimeto section.

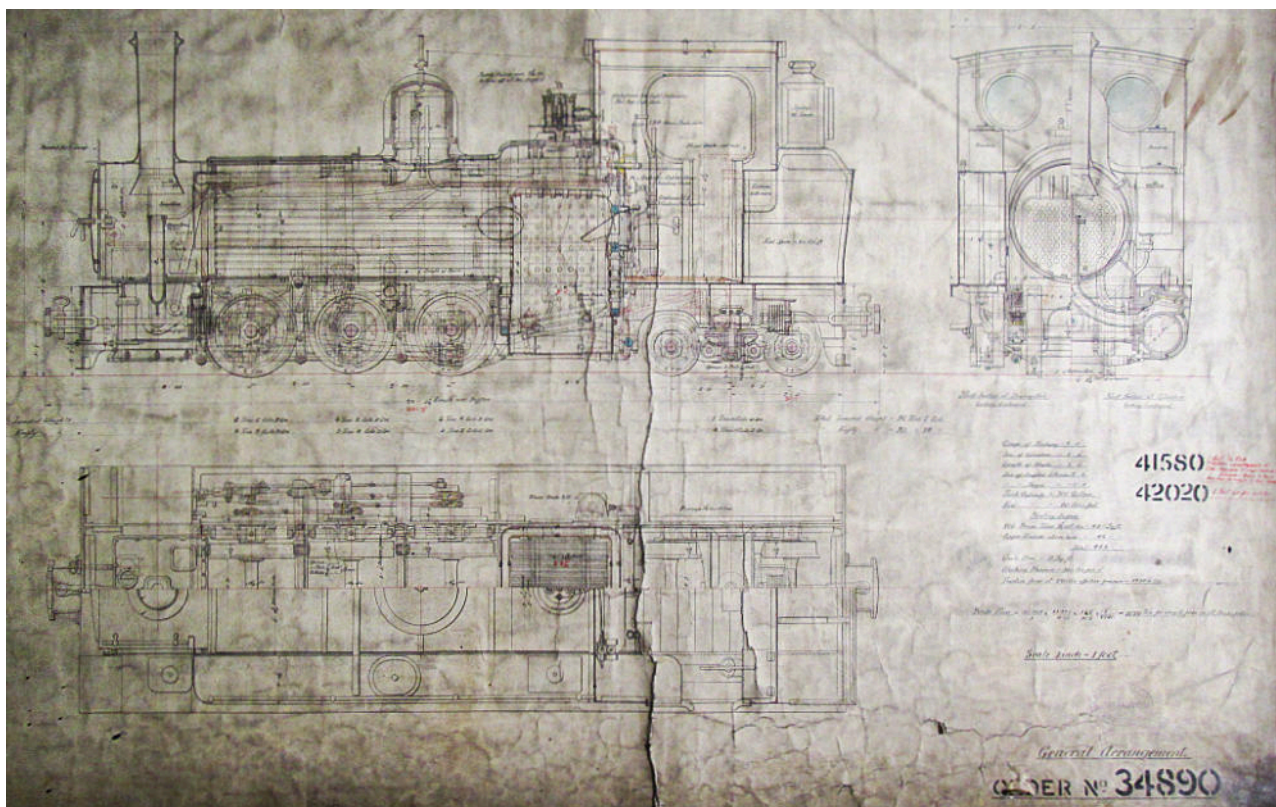
0-6-4T d/w 30", cyls. 13x18", built by Hunslet in 1913, 1924 and 1925

Ordered for Bolivar Railway.

7 ²	w/n 1127
8 ²	w/n 1128
9 ²	w/n 1455



O-6-4T no. 7 as built. Photo from the Hunslet archive at Statfold Barn Farm, Staffordshire. The big headlamp being mounted behind the cab suggests that these locos were intended to work cab-forward.



A GA drawing found in the Hunslet archive at Statfold Barn Farm in Staffordshire, UK.



This is supposedly Hunslet 0-6-4T no. **8**, now in the Caracas Transport Museum, and very obviously built to a standard Avonside design but with an extended rear end and a trailing 4-wheeled bogie instead of a 2-wheeled truck. These photos are from <http://www.forotrenes.com/foro/viewtopic.php?t=83296>

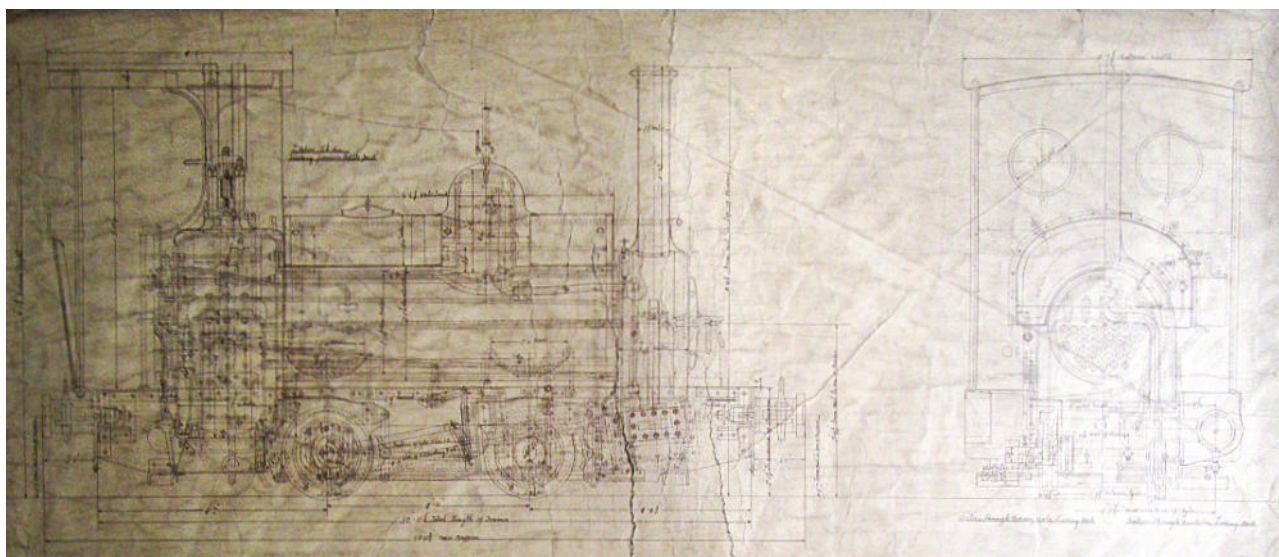


0-4-0ST d/w 20¼", cyls. 7½x10", built by Hunslet in 1913

Ordered for *FC Bolivar*. This was the third 'quarry Hunslet' built for use in Central and South America, the previous two being for Guatemala in the 1880s.

20

w/n 1130



Drawing found in the Hunslet archive at Statfold Barn Farm in Staffordshire, UK.

1914 memoria

The MOP memoria for this year stated, “*Materiales Rodantes. Estos están mantenidos en buena condición, y el número de locomotoras se ha aumentado por tres, o sea dos de tipo patente para el tráfico ordinario y una pequeña para funcionar únicamente en las obras de la construcción del Ramal a San Felipe.*” [7] The total number of locos was shown in a table covering all Venezuelan railways as thirteen [16 1914 pd514 p104a].

1918 memoria

Pages 323-324 reports a boiler explosion on loco no. 1: “*De Tucacas a Caracas, el 2 de octubre de 1917.—Las 2 hs. 30 ms. p. m.—Señor Ministro de Obras Publicas.—Me informa el señor Administrador de la Empresa Bolivar, que hoy a las 7 y 10 hizo explosion la caldera de una locomotora, que estaba en el patio del taller tomando carbon; y que ignora la causa del hecho. Hubo tres (3) heridos, entre los cuales hay uno (1) de gravedad, fogonero. Me traslado aquel lugar hacer personalmente la averiguacion de lo ocurrido.*”

“*De Aroa a Caracas, el 4 de octubre de 1917.—Las 6 hs. p. m. Senor Ministro de Obras Publicas.—La causa del hecho ocurrido aqui antes de ayer, lamentable por cierto e insolito a la vez, esta en que la locomotora la sacaron el maquinista y el fogonero con las valvulas de seguridad o escape y las del manometro completamente cerradas. Estos empleados no son mecanicos titulares y de ahi la ignorancia de no haber visto el motivo del peligro que se acercaba. El manometro marcaba solamente 20 Libras, pero el vapor desarrollado en la caldera era ya asombroso y no obstante, el fogonero continuaba metiendole combustible a la caja del fuego hasta que ocurrio el desastre, que pudo haber sido de pavorosas consecuencias, porque la caldera volo y cayo como a 150 metros del lugar del suceso y la caja de fuego subio a una altura de 50 metros, aproximadamente, de manera que los tubos y remaches de la locomotora volaron en distintas direcciones e hirieron levemente algunas personas que se encontraban retiradas del teatro del acontecimiento. El fogonero murio ayer y el maquinista no perecio porque instantes antes habia ido a -dar cuenta del defecto de la maquina al Inspector de la section locomotoras.*” [10]

“*Conforme a nuestro telegrama del 2 de octubre próximo pasado, la locomotora número 1 hizo explosión cuando estaba parada tomando carbón para emprender sus maniobras. Desgraciadamente murió el fogonero. Abierta la averiguación correspondiente por las autoridades políticas y civiles, no encontraron responsabilidad criminal en nadie y, según informaciones que he obtenido, el tribunal sobreseyó en la causa. Tengo el agrado de informarle que se han pedido de los Estados Unidos de Norte América los siguientes materiales nuevos: doce (12) wagones casillas para cargar mercancías, con capacidad de ocho mil (8.000) kilos cada uno, y que pronto se esperan aquí, y dos (2) locomotoras que se están construyendo para quemar aceite crudo exclusivamente, lo que señalará una nueva etapa en la historia ferrocarrilera del país, puesto que esta Administración está gestionando con una de las empresas petrolíferas, cuyos productos se obtienen en la República, para la provisión de este combustible.*” [10]

??? d/w ?, cyls. ?, built by (a US manufacturer) in 1918?

Ordered for ?

? w/n ?

? w/n ?

1920 memoria

“Material rodante. Los vehículos de la Compañía se encuentran en buenas condiciones y los doce vagones-casillas americanos, de los cuales hicimos referencia en nuestro reporte anterior, están en servicio, y además lo está también uno nuevo, construido en nuestros talleres. La locomotora de la que se hizo referencia en el reporte del año pasado para quemar petróleo crudo, fué montada, y dos de nuestras locomotoras que quemaban carbón fueron convertidas para quemar aceite, y por tanto, la Compañía posee cuatro locomotoras del tipo para quemar combustible de petróleo, entre las cuales se halla la número 3, que ha sido dotada de caldera nueva y está en condición perfecta para el servicio.”

1921 memoria

“Materiales de tracción y rodantes— Durante el año hemos reconstruido por completo la locomotora No. 1, dotándola de caldera y movimientos nuevos, y convirtiéndola en quemadora de petróleo, de quemadora de combustible sólido que era. Las locomotoras Nos. 14 y 17 están al salir de los talleres también completamente reconstruidas, incluyendo dotación de calderas nuevas. Las demás locomotoras han sufrido reparaciones más o menos importantes durante el año para mantenerlas en buen estado de servicio y han hecho todo lo que se esperaba de ellas satisfactoriamente. Con la conversión de la locomotora N° 1 de tipo grande que efectuamos en este año, tenemos 7 locomotoras que usan petróleo como combustible, o sea una más que el año pasado. ”

1925 data in US report

This document states that there were eighteen locomotives having an average weight of 23 tons each.

1936 total

The 1936 *Supplement to the World Survey of Foreign Railways* gives the number of locos on this railway as sixteen.

Unidentified engines

The photo below shows two tank engines late in the railway’s operating life. It looks as the one on the left has been propped up on blocks, probably whilst the wheelsets have been taken out.



10.7.2 *Tranvía a vapor de Güigüe*

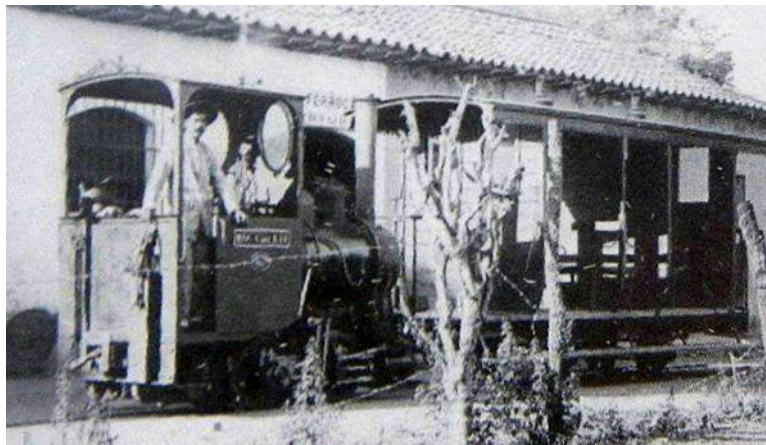
Background

600 mm gauge.

0-4-0T d/w ?, cyls. ?, built by Krauss in 1889 (1-5), 1890 (6-8), 1891 (9) and 1892 (10-14)

Ordered via Arthur Koppel. NB Merte's Krauss list gives other customers for nos. 2173-2175, 2178 and 2614-5.

1	w/n 2169
2 'SANTA ANA'	w/n 2170
3	w/n 2171
4 'BOCA DEL RIO'	w/n 2172
5	w/n 2173
6	w/n 2174
7	w/n 2175
8 'GÜIGÜE'	w/n 2178
9	w/n 2349
10	w/n 2612
11	w/n 2613
12	w/n 2614
13	w/n 2615
14	w/n 2684



10.7.3 *Casigua a Palmira*

Background

600 mm gauge.

10.8 Industrial railways

10.8.1 *Puerto de La Guaira*

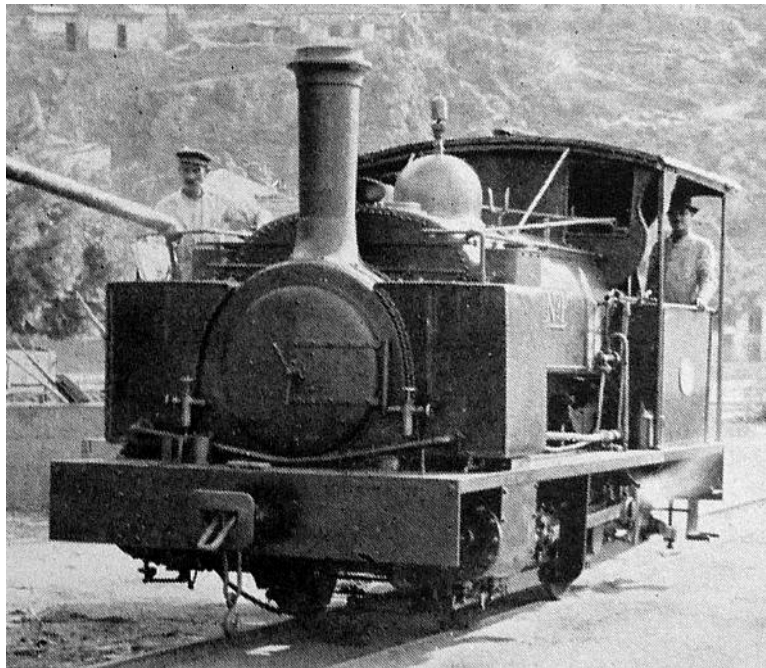
Background

3' 0" gauge. Later part of the *Servicio Portuario*. A report in source ??? covering the construction of the port mentions that 7 locomotives were in use.

0-4-0ST d/w ?, cyls. ?, built by Hunslet in 1884

Ordered via James Livesey for La Guaira & Caracas RR.

- | | |
|---|---------|
| 1 | w/n 346 |
| 2 | w/n 347 |



The number-plate on the saddle tank suggests that this was Hunslet 0-4-0ST no. 1. Note the extra water tanks alongside the smokebox.



Probably one of the same two Hunslets on the quayside as seen from above.

0-6-0ST d/w ?, cyls. ?, built by Hunslet in 1886

Ordered via Punchard & Co. for La Guaira Harbour Corporation. The first Hunslet locos with Walschaerts valve gear [1].

3 ‘PACIFICADOR’ w/n 389

4 ‘RESENERADOR’ w/n 390 Name probably actually ‘**REGENERADOR**’.



This has not been confirmed as La Guaira port no. **3** by Hunslet, but it seems very probable. There seems to be something obscuring the motion., possibly coal briquettes stacked on shelves, but also possibly owing to later digital manipulation of the image.



Unlike the port’s other engines, these 0-6-0ST Hunslets had upper cabside panels, thus facilitating their identification even from the rear.

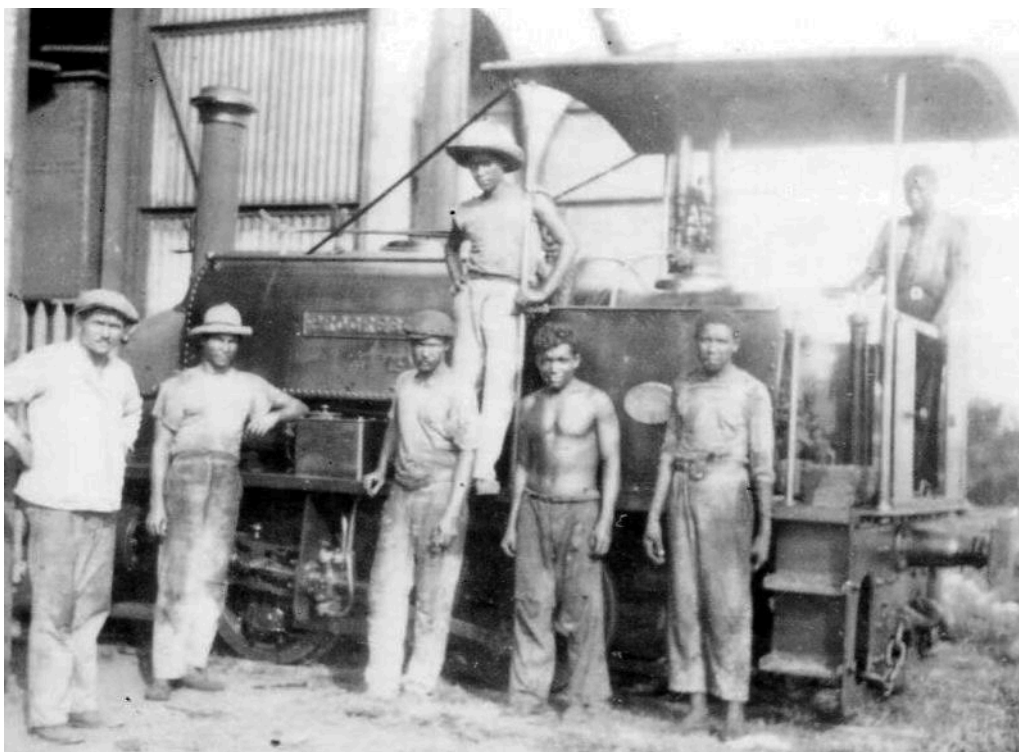
0-4-0ST d/w ?, cyls. ?, built by Hunslet in 1886

Ordered for Punchard, McTaggart & Lowther at La Guaira.

‘PROGRESO’ w/n 402

Later sent to *FC Carenero*.

‘TIGRE’ w/n 403



'PROGRESO' as seen later on the FC Carenero.



This modern photo of one of the **'TIGRE'** name-plates was posted by Sr. Juan Jose Peña Tavio in the Maiquetia y su pasado group on Facebook. It was captioned as having belonged to one of the engines used on the FC Maiquetia á Macuto, which might well be true as that railway (prior to its electrification) was reputed to hire in locos from La Guaira port.

The fleet in 1897

The MOP memoria for 1898 [16, 1898, p348] says:

VIAS FÉRREAS, MATERIAL RODANTE, GRUAS Y TALLERES

Las primeras están bien colocadas y en buen estado: su conservación se atiende cuidadosamente; la sustitución de rieles del peso mayor de cincuenta libras por yarda, en vez de las cincuenta libras que antes se usaban, ha sido bien pensada. El material rodante se encuentra en buen estado de servicio, y está evidentemente bien cuidado, y las locomotoras en particular, llaman la atención como bien atendidas. La locomotora número 2 se halla al presente desmontada en los talleres. Las grúas estaban todas funcionando durante mi estada en La Guaira, y todas se hallan en buen estado de servicio.— Los talleres y depósitos (almacenes) están bien atendidos, y se notaba en ellos una administración cuidadosa.

1914 memoria

This annual reports states that four locos, each of 20 tonnes, were in service.

1920 memoria

“Material rodante. Nuestras locomotoras han sido revisadas y reparadas. Actualmente aguardamos de Inglaterra las nuevas calderas para las locomotoras números 3 y 4. Además de las locomotoras número 1 y número 3, hemos equipado para usar petróleo, en vez de carbón, a la locomotora número 2; todas están trabajando con éxito. Hemos dado especial atención a nuestros vagones, reparándolos y pintándolos y están todos en muy buenas condiciones. Los coches de pasajeros se repararon y pintaron. ”

1922 memoria

“Locomotoras y vagones.—Locomotoras: Han sido revisados, ajustadas y reparadas, estando los seis en buenas condiciones. ”

0-6-0ST d/w 36½", cyls. 11x18" oc, built by Hudswell Clarke in 1927

Ordered for via Hudsons for Anglo-Venezuelan Trust & Agency Co. Ltd. for La Guaira.

‘L.G.H.C.’

w/n 1591



This engine has not been identified, but it clearly has a semi-circular saddle tank unlike those on the Hunslet locos shown above.

4wVBT d/w 30", cyls. 6¾x9", built by Sentinel in 1935

SP5L1 (?)

w/n 9135

SP5L2 (?)

w/n 9230



There are two surviving Sentinels of this design, probably both from La Guaira port operations.

1936 total

The 1936 *Supplement to the World Survey of Foreign Railways* gives the no. of locos on this railway as seven.

0-6-0T d/w ?, cyls. ?, built by a German builder in 1938

Ordered for *Carenorobahn*, Venezuela. 110hp. Replacement boiler ordered at same time. See section 10.4.3 on the *FC del Carenero*. That is almost certainly the same loco as this one, but its full history is as yet unclear.

?

w/n 13105?



The photo was supposedly taken at La Guaira port in the 1950s.



A photo in Whitehouse and Allen's *Round the World on the Narrow Gauge*, published in 1966. It was described there as being on the metre gauge and from La Guaira, but was almost certainly actually on the 3' 0" gauge. The wording on the cabside reads *Servicios Portuarios*. One website states that this engine was named '**SANTA LUCIA**' and that it worked on the *FC Central*. This is almost certainly false, though the Central railway did have a 2-6-2T named '**SANTA LUCÍA**'. A more puzzling confusion, however, is with the loco of the *FC del Carenero* listed at the end of section 10.4.3 and now preserved at the Caracas transport museum. It seems likely that this is the same engine, but its history remains unclear.

10.8.2 The New York & Bermúdez Co.

Background

3' 0" gauge. Guanaco Railroad. 13 km. This seems to have been well to the east, along close to the *FC de Carenero*. The early photos below show small 0-4-0ST locos, at least one very possibly by Porter, and of at least two varieties. These photos were published originally in *El Cojo Ilustrado* in February 1902, and were discovered there by Luis Manuel Carapaica Gil of the *Gran Ferrocarril de Venezuela* Facebook group. The railway supposedly ran for 15 km. from the Guanoco asphalt lake to the port of Caño Guanoco. The NY & B Co. supposedly ceased operations at Guanoco in 1934 owing to the use of natural asphalt having been superseded by that of petroleum-based asphalt, though note that the last loco purchase was not until 1938.

0-4-2 d/w ?, cyls. 8x14", built by Porter in 1896

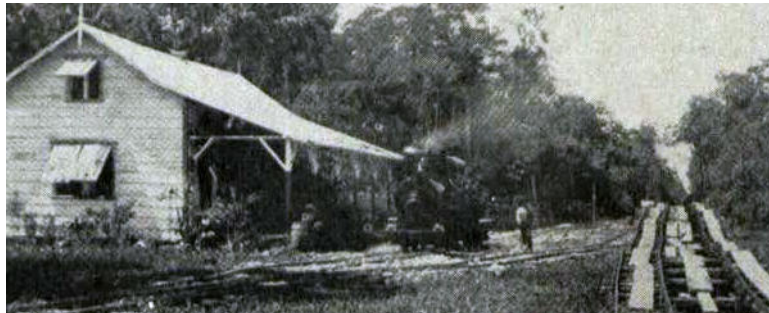
Ordered for the New York & Bermúdez Co., Venezuela.

?

w/n 1688



The substantial cab and bunker suggests that this small saddle tank might be an 0-4-2T.

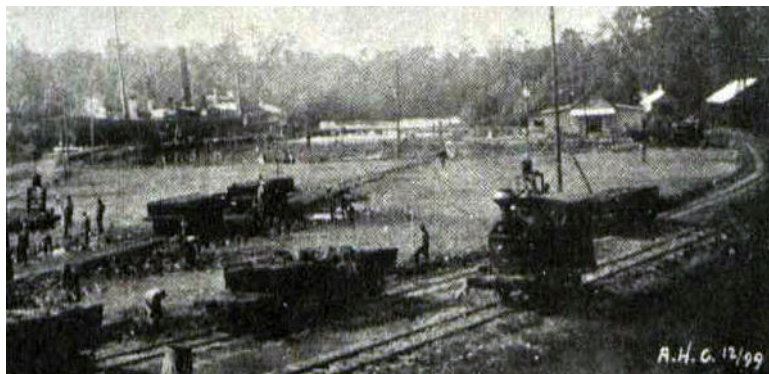


The final image below is an enlargement of part of this second photo.



A different small saddle tank engine

In contrast to the engine shown above, which has a cab extending well above the top of the saddle tank (as high above as the tank is above the boiler), that seen in the photos below (right hand loco in the third image) has a very high tank top with the cab roof no more than twelve inches higher. The builder is currently unknown.





An enlargement from the previous image.



Two engines, that at the left being a Porter, whilst the one on the right is of this unknown type with a saddle tank not a lot lower than the cab.





Yet another view of this unknown type of engine, this time hauling an open-sided bench seat passenger car.

0-4-0T d/w ?, cyls. 7x12", built by Porter in 1909

Ordered for the New York & Bermúdez Co., Venezuela.

? w/n 4265

0-6-2T d/w ?, cyls. 7x12", built by Porter in 1909

Ordered for the New York & Bermúdez Co., Venezuela.

6 w/n 4361

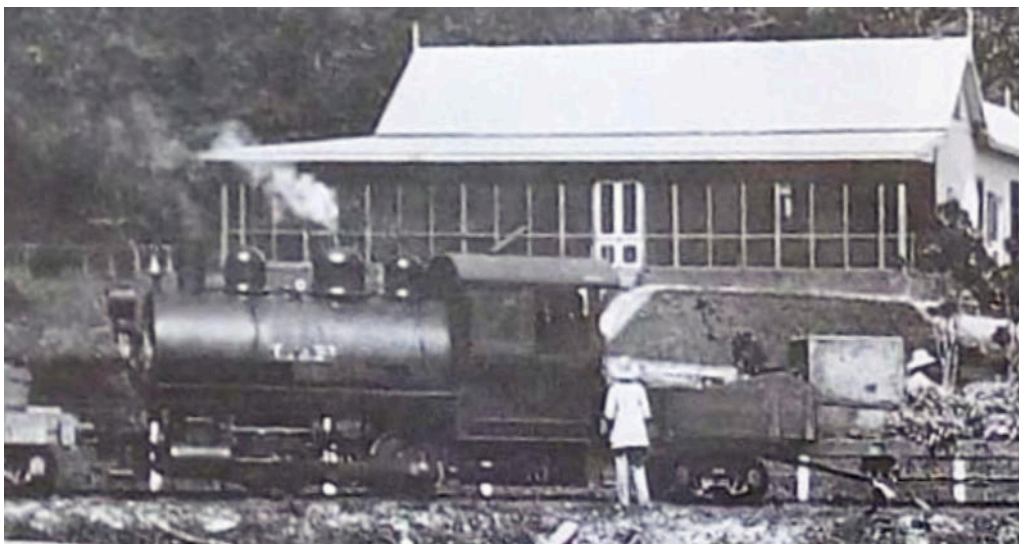
7 w/n 4362

0-4-0 d/w 31", cyls. 11x16", built by Porter in 1911 and 1912

Ordered by New York & Bermúdez Co. 21 tons.

? (possibly 8) w/n 4949

? (possibly 9) w/n 5057



This larger 0-4-0ST would appear to be of rather later build than the locos pictured above. However, the picture was reputedly taken in December 1913. It was posted on Facebook by Sr. José Zambrono. The initials on the engine's saddle tank would appear to include the letters 'L' and 'P' or 'B', with perhaps another in between. This might relate to the 'La B RR' initials supposedly to be inscribed on the 2-8-2 listed below, though the meaning of those is not yet known.

2-8-2 d/w 42", cyls. 17x22", built by Baldwin in 1913

Ordered for New York & Bermúdez Co. BLW class 12-28 1/4E no. 13. Spec. is in vol. 49 p 122. Mark on tank sides to be 'N.Y. & B. Co. – G & La B R.R.' but anotation saying send new front no. plate and sufficient paint to change road no. to **20** and mark on side of tank to 'N.Y. & B. Co. – La B R.R.' Cost \$11325.

10¹ w/n 40953 Steam test 1st December 1913, despatched? 12th December 1913. It has been suggested that this engine may never have reached Venezuela, instead being sold several years later to the Uintah Railway in Utah. However, Linwood Moody in his article on the Uintah Railway [21] states: "... in 1919 the Barber Company sent the road another mikado similar to the No. 30 but 13 tons lighter. This engine had been built six years earlier for another General Asphalt Co. subsidiary, the New York & Bermudez Company's railroad in Venezuela. It proved too heavy for the swampy terrain down there and broke through a bridge on its maiden trip. After laying in disuse for several years this engine was crated and shipped to the Uintah where it was long one of the Uintah's most efficient and economical locomotives."



Baldwin builders' photo of no. **10**. It is not clear whether this engine first went to Venezuela but was found to be unsuitable, or if perhaps

it was never delivered for some reason. Either way, by 1919 it was on the Uintah Railway in Utah and Colorado – hauling asphalt just as its original Venezuelan purchaser had intended.



Uintah Railway no. **40**, purchased 6/1919 and scrapped on the closure of the road in 1939. Obvious changes from its original condition include the rear end extension to the tender tank, the addition of an air reservoir implying the fitting of Westinghouse brakes, and the replacement of the twin sand domes by a single one set up for use in both directions



A view of the other side of Uintah no. **40**.

0-6-0ST d/w 34", cyls. 12x18", built by Baldwin in 1923

Ordered for New York & Bermúdez Co. BLW class 06-18D no. 67. Spec. is in vol. 66 p 146. Steam tested 1st May 1923, and despatched 19th June 1923. Cost \$9075.

10² w/n 56526



0-4-0ST d/w 23", cyls. 7x12", built by Baldwin in 1923

Ordered for New York & Bermúdez Co. BLW class 04-08C no. 97. Spec. is in vol. 66 p 144. Steam tested 1st May 1923 and despatched 19th June 1923. Cost \$4400.



1925 data in US report

Apparently eight American-built locos were in use. However, if the 1923 0-6-0ST was numbered **10²** and the 0-4-0ST was no. **11**, does that mean there were nine earlier locos (apart from the big 2-8-2 long gone), for if so we are missing three.

0-4-0 d/w 27", cyls. 9x14", built by Porter in 1938

Ordered by New York & Bermúdez Co. 12 tons.

4

w/n 7039

0-6-0 d/w 36", cyls. 14x18", built by Porter in 1938

Ordered by New York & Bermúdez Co. I can't help wondering if this was perhaps ordered for work elsewhere since most sources suggest that activity at Guanoco had ceased by 1934.

?

w/n 7101

10.8.3 Various other asphalt mines

Las minas de asfalto de Inciarte

Background

Gauge 3' 0". West of Maracaibo city. 42 km long to Carasquero on coast. According to the 1925 US report this railway was built in 1900 by the United States & Venezuela Co., controlled by Ubalde Asphalt Paving Co. (I wonder if this was connected with the St. Ubalde asphalt business in Canada.) However, a 1905 law compelling all local trade to be done through Maracaibo rather than Carasquero forced the company out of business.

0-4-0ST? d/w ?, cyls. ?, built by ? in ?

Ordered for ?

1 w/n ?

0-4-0ST? d/w ?, cyls. ?, built by ? in ?

Ordered for ?

2 w/n ?

0-6-0T d/w ?, cyls. 10x14", built by Porter in 1903

Ordered for the United States & Venezuela Co.

3 w/n 2664

Caribbean Coal Co.

After ten years of abandonment, in 1915 the concession was taken over by the Caribbean Coal Co.

The 1910 *obras públicas memoria*, pages 512-515, includes an inspector's report on the reconditioning of this location and its railway. The first few paragraphs read as follows:

"MINA DE ASFALTO INCIARTE

INFORME

FERROCARRIL

Para ésta fecha el monte que cerraba completamente la línea ha sido abierta en una zona de 3 metros de ancho en toda la longitud, para facilitar el movimiento de reparación general. Y en los primeros 5 kilómetros ya el despejo completo del monte se ha hecho con 10 metros de latitud.

Se han terraplenado en firme con 1800 metros cúbicos de tierra todos los pasos fallos, de donde las aguas del invierno la habían quitado; ya se trafica por ella sin peligro y menoscabo del material.

Están afirmados y reparados con vigas y durmientes nuevos, ocho puentes y quince alcantarillas, de éstas algunas de mucha importancia; y definitivamente en firme han quedado unos 15 metros de línea en tierra adelante y atrás de cada puente y de cada alcantarilla.

Durmientes nuevos de calidad muy escogida de madera de puro corazón (vera y curarire ó araguaney), se han colocado en línea 2.122, concentradas especialmente en las curvas de menos radio y en terraplenes altos.

En el patio de trenes se ampliaron varias curvas de ferrocarril y se hizo una prolongación de 150 metros para facilitar el movimiento de los wagones.

Las dos locomotoras números 1 y 3 fueron armadas; reponiendo más de la mitad de los tubos de caldera; están traficando para los trabajos de la línea y de la Mina.

Están reparados en buena forma doce wagones de carga y se han construido dos carritos ó zorras para el servicio de la cuadrilla de peones.

También se ha construido una muy buena fosa ó estanque pan limpieza de locomotoras y wagones, largó de la fosa, 10 metros. Los estanques para agua han sido reparados de un todo. y en el de La Ceiba se monto una bomba nueva,

para elevar el agua de un caño al estanque, haciendo una tubería de dos pulgadas de diámetro y cincuenta metros de largo.

...

LA MINA

Desde el lunes 24 de enero pudo llegar la máquina pequeña No. 1, máquina para servicio de construcción, á la mina y desde entonces empezo el Contratista á extraer asfalto y á trasportarlo para el depósito, aqui en Carrasquero, puerto en la orilla del rio Limón y término del ferrocarril.

... ”

From this it is confirmed that the railway had previously been in use, and that it had possessed at least three locomotives of which no. **1** was particularly small. Operations apparently resumed but did not last long. In 1919 there were conversation about building a line from Los Castilletes to Santa Rosa or to El Filon del Espejo. The line was abandoned again in 1918 or 1919.

1925 data in US report

At this time the railway was derelict but had possessed two locos.

Las minas de asfalto de Guanipa

Background

Gauge unknown. 3 km. Locos unknown. Guanipa is in Anzoategui state in eastern Venezuela, north of the Orinoco river.

10.8.4 Gold mining locations

New Gold Fields of Venezuela

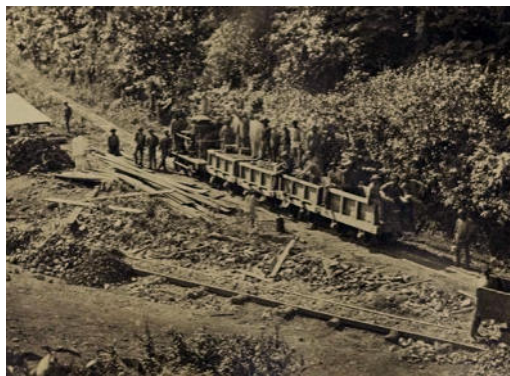
Background

2' 0" gauge.

VIW 4598 reported here was a diesel loco.

Caratal

Various companies, such as the *Compañía Minera Nacional Anónima El Callao* (see below), exploited rich gold veins in the Venezuelan Guiana Highlands, centred on the town of Caratal, now known as El Callao.



This photo seems to show a small vertical-boilered loco hauling four wagons.

Nothing further is known though another photo suggests that the track might have been around 75cm or 2' 6" gauge. The image was found at

<https://earlylatinamerica.wordpress.com/2014/11/18/the-search-for-gold-in-venezuela-1875/>

La Cía. Minera El Callao

Background

750mm gauge. Notes by Martin Potts found on the Shay locomotives database say: “The loco was used for hauling gold ore from the outlying mines to the central gold recovery plant, replacing two Decauville locos that were too small. These outlying mines (of which Colombia was the most important, hence the loco name), were much lower grade than the original El Callao mine, which was worked out and abandoned in 1894. The El Callao company failed in December 1896, mainly because of the low gold grade, but also because of political instability in the region. There were three subsequent companies, all of which seem to have used the railway and presumably also the loco.

These companies were: El Callao Consolidated Gold Mining Co Ltd - registered 26/2/1903, replaced by El Callao General Gold Mining Co Ltd - registered 3/4/1906 and liquidated 5/12/1912, replaced by the New Callao Gold Mining Co Ltd. The New Callao company survived into the 1950s, though little was actually done after the 1920s.

The railway probably fell out of use some time in the late 1920s, though the equipment was probably not scrapped until the steel mill at Puerto Ordaz was built in the late 1950s. However, it may have been broken up some while earlier to release the space in the middle of the town.”

0-4-0T d/w?, cyls. ?, built by Decauville in 1892-3

Ordered via Hoskier & Co. for gold mine Venezuela.

‘PORVENIR’

w/n 164

‘PROVIDENCIA’

w/n 165

2 truck Shay, d/w 26½", cyls. (3) 8x8", built by Lima in 1894

Ordered by Frazer & Chalmers of Chicago for El Callao Co. Class B 28-2.

‘COLOMBIA’

w/n 474

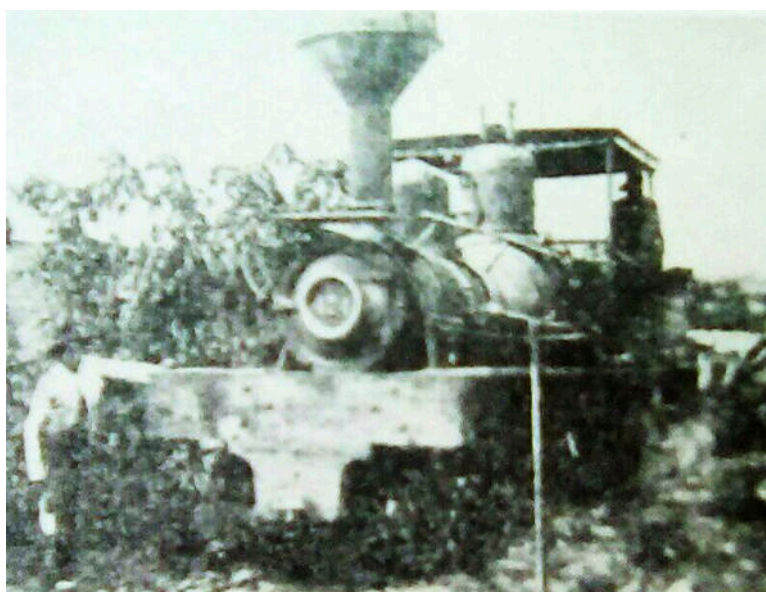
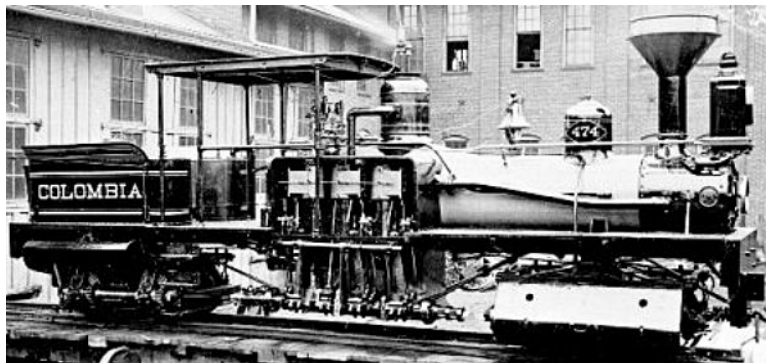


Photo was captioned: *Una de las locomotoras de la Compañía Nacional de El Callao.
Maquinas que se utilizaron para movilizar las vagonetas que transportaban cuarzo
aurifero destinado al molino.*

10.8.5 Asiatic Petroleum Corporation

Background

2' 6" or 2' 0" gauge.

2' 0" gauge locos

0-6-0 d/w 24", cyls. 8x12", built by Baldwin in 1926

Ordered for Asiatic Petroleum Co., Venezuela. BLW class 06-10D nos. 16 and 17. Spec. is in vol. 79 p 176. Mark on tank sides to be 'CARIBBEAN PET. CO.' Used on *FC Encontrados Bobures*.

? w/n 59307

? w/n 59308

2' 6" gauge locos

2-6-0 d/w 28", cyls. 10x14", built by Baldwin in 1926

Ordered for Asiatic Petroleum Co., Venezuela. BLW class 08-14D nos. 44 and 45. Spec. is in vol. 79 p 179. Mark on tank sides to be 'COLON No. 1' and 'COLON No. 2'.

'COLON No. 1' w/n 60691) One is at the club Lagunillas Carabobo Norte.

'COLON No. 2' w/n 60692) the other in the Estacion del Consejo.





One of this pair as plinthed at the Carabobo Norte Club.

10.8.6 British Controlled Oilfields Ltd.

Background

Gauge 2' 6". 55 km. From Alta Gracia port to El Mene de Mauroa, on the east side of the Gulf of Maracaibo.

1925 data in US report

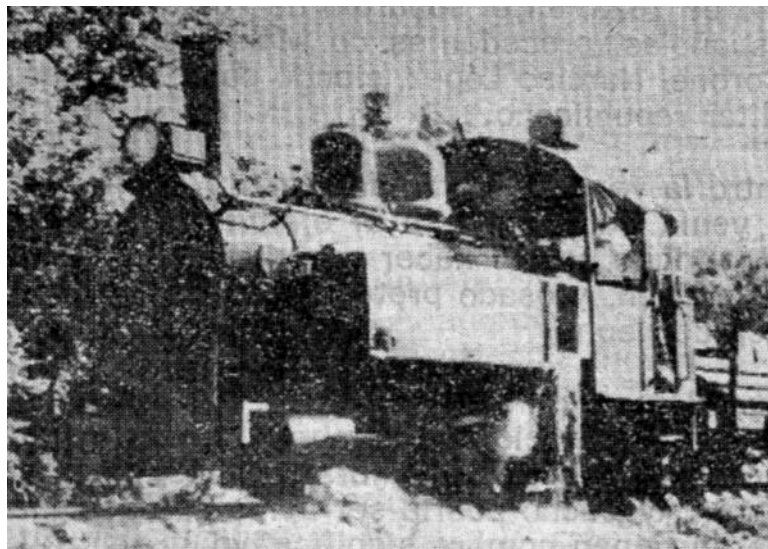
The railway was under construction when the owning company was taken over by Standard Oil in 1924-5. There had been two gasoline/petrol locos but the intention before the takeover was that three steam locos would be purchased.

0-4-2T d/w 33", cyls. 9x16", built by Baldwin in 1926.

Ordered by British Controlled Oilfields Ltd. BLW class 06-11 1/3C nos. 68-69. Spec. is in vol. 79 p 169. Strangely Connelly's Baldwin list says cyls. were 8.5x14" and d/w were 30", contrary to what spec. sheet says. Erecting card drawings are 355-25CX and 355-25X in DeGolyer Library collection.

'ZULIA' w/n 59444

'FALCON' w/n 59445



10.8.7 Other oilfield operations

Standard Oil Co. of Venezuela

Background

Gauges 3' 0" and 2' 0" on three separate systems. 50 km. The company operated 1921-1943?

1925 data in US report

All locos were apparently internal-combustion-engined.

Largo Petroleum Corporation

Background

Gauge 2' 0". 4.5 km.

1925 data in US report

All locos were apparently internal-combustion-engined.

Venezuelan Oil Concession

Background

Gauge 2' 0". 4.5 km.

1925 data in US report

All locos were apparently internal-combustion-engined.

The Caribbean Petroleum Co.

Background

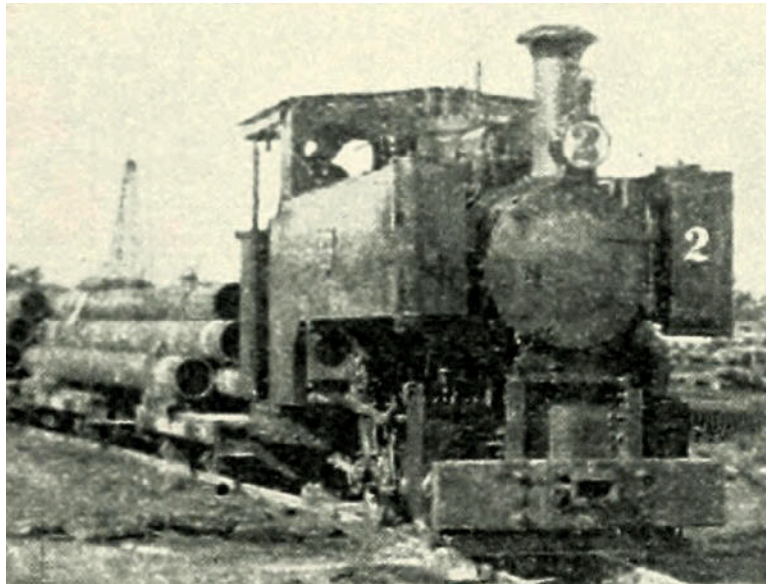
2' 0" gauge. 40km. Mene Grande to San Lorenzo?

0-4-0 d/w ?, cyls. ?, built by Hanomag in 1924

2' 0" gauge. Ordered via *Bataafsche Petroleum* for Venezuela.

? w/n 9364

? w/n 9365



Whilst this image was found labelled as being the Caribbean Petroleum Co. at San Lorenzo in Zulia, there is no certainty that this loco numbered **2** was actually one of the HanoMAGs listed above.

1925 data in US report

This report mentions only two steam locos of ten tons each, used for heavy freight on the mainline. All other locos were gasoline-fuelled.

2-6-0 d/w ?, cyls. ?, built by ? in ?

Shell San Lorenzo refinery

Background

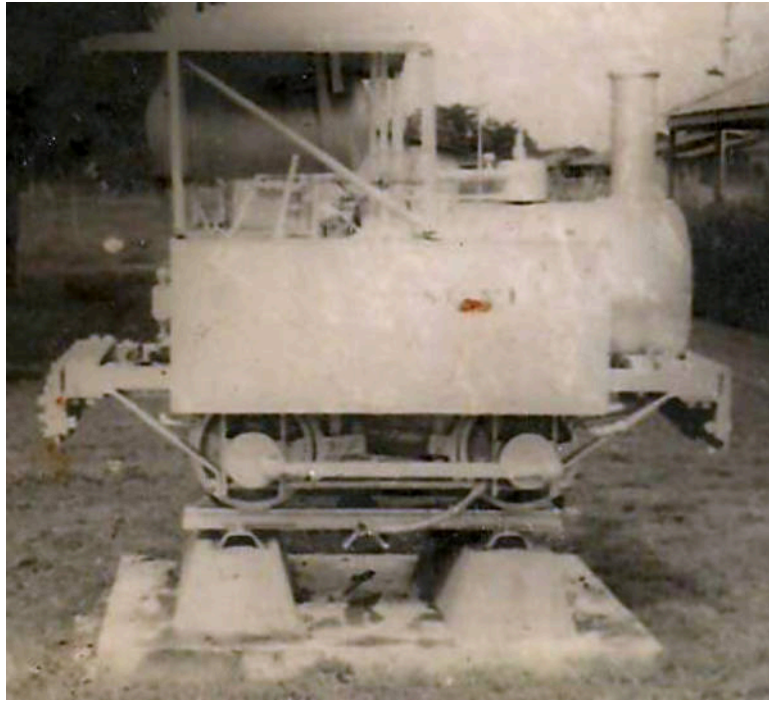
2' 0" gauge.

0-4-0T geared d/w ?, cyls. ?, built by Bell in 19??

See <http://www.gearedsteam.com/bell/bell.htm> for more information about Bell geared locos.

?

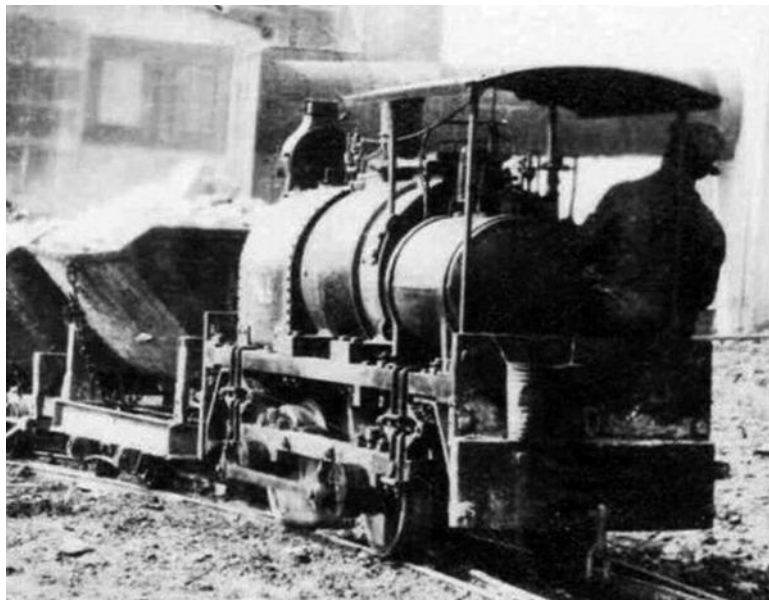
w/n 209



A Bell loco plinthed at San Lorenzo. This may well be the engine now in the Caracas museum.



This loco is now at the Caracas transport museum, as seen in this photo by Steen Larsen from <http://internationalsteam.co.uk/trains/venezuela01.htm>



A Bell geared loco (without side tanks) in service. Location unknown, not in Venezuela.



“About the Santa Teresa train In the photograph from the late 1970s, the locomotive donated to the Transportation Museum on the occasion of its foundation 45 years ago, by the Shell Company of Venezuela. The concessionaire kept it operational for a decade at the San Lorenzo refinery, on the east coast of Maracaibo, from where it was brought to Caracas and ran on the Museum's rails for several years before being acquired by Hacienda Santa Teresa for its project to rehabilitate the GFV station El Consejo. There it also worked as part of the offer of a tourist tour around the station, decorated so that it could be enjoyed as

in its best times. It has been out of service for some time. Also in El Consejo lie the remains of important parts of another of the German Hartmann locomotives operated by the Gran Ferrocarril de Venezuela (GFV) between Caracas and Valencia. Col. FMT.' Paragraphs from:
<http://museodeltransportecaracas.blogspot.com/2016/01/sobre-el-tren-de-santa-teresa.html>

Oilfield lines at Cabimas

Background

The following paragraphs from the Cabimascity Facebook page were shared by José Zambrano onto the Gran Ferrocarril de Venezuela Facebook group. Gauge probably around 3' 0" judging by the photos Cabimas is on the eastern side of the strait linking the gulf of Maracaibo with the sea, almost opposite Maracaibo city.

"Los Ferrocarriles en Cabimas

En Cabimas hubo tres líneas ferroviarias usadas por las compañías petroleras para transportar materiales. Existieron entre 1926, y 1940 cuando fueron substituídas por carreteras.

Las vías férreas fueron:

1.- de la VOC pasaban entre donde ahora es D'Candido (que eran los talleres de la VOC), y el muelle de la VOC (donde ahora es La Fuente).

2.- Las vías férreas de la Lago Petroleum Corporation iban desde La Salina hasta donde ahora es Tamare. Además tenía unas locomotoras de transporte de personal que eran Ford modelo T modificados al que se les cambió el chasis volviéndolos "buses de madera". En las fotos se pueden leer las siglas LPC. Estos eran llamados "railcars" y eran de uso exclusivo para el personal de la compañía.

3.- El ferrocarril de la Gulf iban desde la IMAUCA hasta el muelle en Campo Staff ¡todavía están los rieles!, y puedes verlos en el 2021.

Todas eran locomotoras "Narrow Gauge Locomotives", o locomotoras de carril angosto, algunos muchachos por molestar, agarraban colita en la de la VOC, pero escondió porque eran para transporte de materiales.

Aún estan los rieles frente al IMAUCA.

Andrés González .".

"The Railways in Cabimas

In Cabimas there were three rail lines used by oil companies to transport materials.

They existed between 1926 and 1940 when they were replaced by roads.

The railroad tracks were:

1.- of the VOC were passing between where D ' Candido is now (which were the workshops of the VOC), and the VOC pier (where it is now The Source).

2.- Lake Petroleum Corporation railroad tracks ranging from La Salina to where Tamare is now. He also had some personnel carrier locomotives that were modified Ford Model T, which changed their chassis turning them into " wood buses ". The photos can read the LPC acronym. These were called " railcars " and were used for company staff.

3.- The Gulf railroad ranged from IMAUCA to the pier in Camp Staff are still on the rails!, and you can see them in 2021.

They were all " Narrow Gauge Locomotives " locomotives, or narrow lane locomotives-some guys to annoy, grabbed tail at the VOC's, but hid because they were for materials transportation.

The rails are still in front of IMAUCA.

Andrés Gonzalez."

As yet there is no evidence that these short-lived systems used steam locos, but a watch is being kept for any relevant information.

10.8.8 *El FC de Paraguachi*

1914-1954?

Background

Gauge 2' 0" or maybe 60cm. On the Isla Margarita. Built for the American Carbonate Co. but later owned and operated by the Magnesite Mining and Manufacturing Co. From magnesite quarries down an incline and then along an 8 km. route northward to El Puerto de Manzanillo near the northern tip of the island. See 1915 *memoria*, pp 149-150.

[8] Sometimes informally known as the *FC de Margarita*. Operated 1914 to 1954 approx.

The following paragraphs are from: <http://museodeltransportecaracas.blogspot.com/2014/06/un-ferrocarril-margariteno.html>

“Un Ferrocarril Margariteño El inventario de los antiguos ferrocarriles mineros acusa el de siete kilómetros de extensión construídos en la isla Margarita, entre las minas magnesita ubicadas en Loma de Guerra y el puerto de Manzanillo. Este tren fue inaugurado el 31 de julio de 1914 pero dejó de funcionar a los 11 años debido a la baja rentabilidad de la operación.

Carlos Stohr, el checo-margariteño cronista gráfico de la Perla del Caribe, recoge testimonios según los cuales la locomotora se paralizó bastante antes de que la concesionaria norteamericana abandonara la explotación. Al parecer, en tiempos de la primera guerra mundial fue difícil mantener operativa la máquina que halaba las volquetas hasta el improvisado terminal marítimo en la pintoresca bahía de Manzanillo, en el extremo noreste de la isla.

The Magnesita Mining & Manufacturing Company, retomó la explotación durante la segunda guerra mundial pero sin locomotora, sustituida por tracción humana aprovechando los rieles paralelos a una trocha -refiere Stohr en crónica publicada en Norte Franco, periódico de Juan Griego.

Los sempiternos litigios por la titularidad de la tierra auyentaron al concesionario. Recuerdan a Mr. Zeiss como a Mr. Schumacher, último gerente de la explotación, cuya hija Amada casó en Margarita con el ingeniero Eduard Madden, también estadounidense constructor del embalse de La Asunción así como de otras obras en varios lugares de Venezuela.

Como vestigios del tren margariteño quedó el aljibe El Jobo y una alcantarilla, ambos en Manzanillo, así como ruinas de la casona habitada por Schumacher desde donde divisaba tanto el mar como el fértil valle de Paraguachí, la vecina localidad cabeza de la microregión.”

0-4-0T d/w ?, cyls. ?, built by O&K in 1913

Ordered for American Carbonate (sic) Co., Venezuela.

? w/n 6834

0-4-2T d/w 24½", cyls. 7x12", built by Vulcan Iron Works in 1916

Ordered for American Carbonate Co.

? w/n 2561

1925 data in US report

Two locos were reported – one of 10 tons and the other of 7 tons. The line was out of use at this time but in good condition.

10.8.9 Sugar centrales

Central Ceiba

Background

Gauge 3' 0". ? km. This was accessed from a branch off the *Gran FC de La Ceiba*.

0-4-0ST d/w 28", cyls. 7x12", built by Baldwin in 1916

Ordered via Kunhardt & Co. for *Central Ceiba*. BLW class 4-08C no. 93. Spec. is in vol. 54 p 300.

? w/n 44427

Central Azucarero del Zulia

Background

Gauge 3' 0". ? km. Owned by *Ingenio Central Sucre?*

2-4-0 d/w 30", cyls. 9x14", built by Baldwin in 1916

Ordered for *Central Azucarero del Zulia*. BLW class 6-11C nos. 27-28. Spec. is in vol. 54 p 301.

2 'SUCRE' w/n 43343

3 'VICTORIA' w/n 43527



Venezuela Sugar Co.

Background

3' 0" gauge. *Central Venezuela*, the property of Don Joaquín Brillembourg, south of the lake - near Santa Bárbara-, where there was one of the largest sugar mills in the west. Bobures to Pinango, about 20 km, and some field lines.

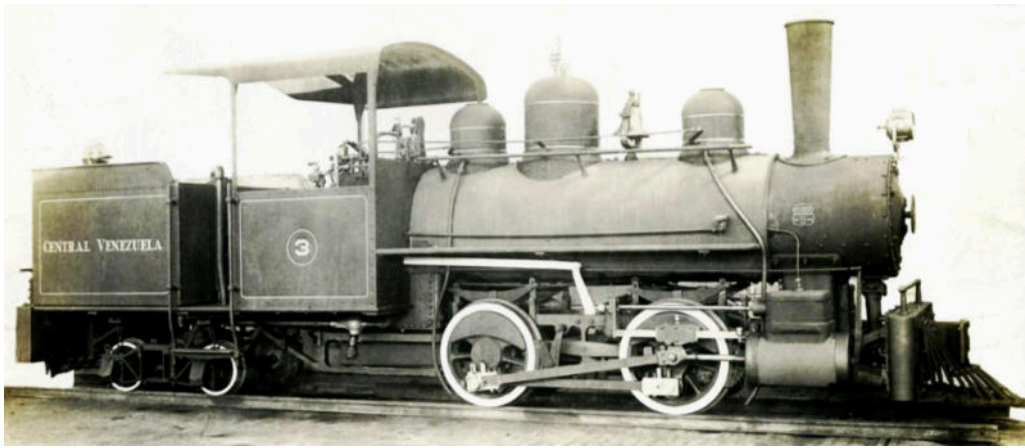
0-4-4T d/w 33", cyls. 10x16", built by Porter in 1915, 1917 and 1920

Ordered for Venezuela Sugar Co. 6483 ordered via Factory Products Co. for Venezuela Sugar Co.

? w/n 5668

3 w/n 5938

? w/n 6483



A Porter builder's photo of no. **3**, as first found by Glen Beadon.



Loco no. **3** is now at the Caracas transport museum, as seen in this photo by Steen Larsen from <http://internationalsteam.co.uk/trains/venezuela01.htm>

0-4-0T d/w 22", cyls. 4½x6½" geared locos, built by Porter in 1915

Ordered for Venezuela Sugar Co. 5 ton geared locos. One may have been numbered **11**.

- | | | |
|----------|----------|--|
| 1 | w/n 5697 | This engine is reputed to be plinthed in a zoo in Maracaibo. |
| 2 | w/n 5698 | |

1925 data in US report

The loco fleet was reported to include four American 0-4-0 locos (presumably these actually included the 0-4-4Ts), and two 0-4-0 geared donkey engines.

“The same firm (ie. Porter) is building a light four-wheel locomotive for a Venezuela plantation. The engines are 6x10 inches with 23-inch driving wheels. The weight of the locomotive in working order is 9,000 pounds and it has on a level road a hauling capacity of 225 tons. The engine will be shipped this month.” [*Pittsburgh Post-Gazette* 1st August 1885.]

Central Sucre

Background

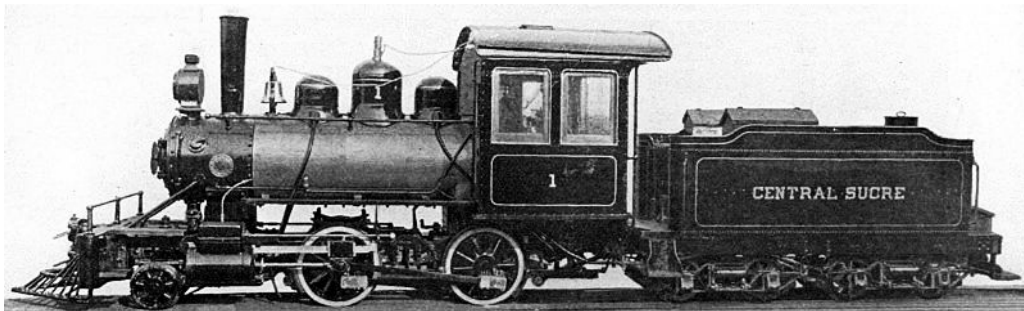
60 cm

2-4-0 d/w 33", cyls. 10x14", built by VIW in 1914

Ordered by *Central Sucre*, Venezuela.

1

w/n 2342



Central Caracas

Background

3' 0" gauge. Whilst there might have been a Central of this name in Venezuela, a better known one was in Cuba.

10.8.10 The Maracay abattoir

Background

Gauge 2' 0" or maybe 60cm? Maracay is on the north-eastern shore of Lago Valencia, and was on the route of the *Gran FC de Venezuela*. This location appeared as a suggestion for the site of the photo below in correspondence on the *Gran Ferrocarril de Venezuela* page on Facebook.

0-4-0T d/w ?, cyls. ?, built by ? in 1??

Ordered for ?

?

w/n ?



10.8.11 The Canadian Venezuela Ore Co.

Background

The only reference so far found is in the 1920 memoria [] page 666, where the following paragraphs refer to equipment purchased from this company now defunct for use at Naricual. The locomotive mentioned was presumably that then being rebuilt to 3' 6" gauge for use on the Naricual Guanta railway under the name 'IMATACA'.

“Una circunstancia favorable ha sido la adquisición que hizo la Nación de los restos de maquinaria de la extinguida Compañía minera Canadian Venezuela Ore Co., que estaban en Imataco, los cuales han sido cedidos a las Hulleras para tatilizarlo en sus trabajos.

Estas máquinas, de excelente calidad y de inmediata aplicación en trabajos de minería, constan de:

Una planta eléctrica compuesta por una turbina de vapor. acoplada directamente a un generador trifásico de 500 kilovatios; un motor de vapor que actúa por transmisión de correo sobre otro generador trifásico de 200 kilovatios, su tablero general de distribución y un condensador de vapor para la turbina.

Cuatro grandes calderas de 250 caballos de fuerza y dos bombas movidas por motores eléctricos, para alimentar los motores de la planta.

Un sistema de tracción compuesto por 2 winches eléctricos de 150 caballos cada uno, que mueven un cable sin fin de 5 kilómetros de longitud.

Un tren de 265 vagonetas de 3/4 de metro cúbico de capacidad.

Dos plantas de aire comprimido, movidas por motores eléctricos y sus correspondientes depósitos, las cuales suministran energía para 14 perforadoras. Este sistema será muy útil en la apertura de socavones y tal vez en la explotación del carbón, usando brocas especiales.

Más de 10 kilómetros de rieles para vía Decauville, de 10 kilos de peso por metro, e igual cantidad de 8 kilos por metro.

Una sonda de terreno, de vapor, con tubería correspondiente y extremidad de diamantes negros, que es un aparato importante para las exploraciones y estudios de nuevas vetas.

Una locomotora de 8 toneladas para vía de 0.m75 de trocha.

Además, mucho material de tubería, platinas y cabillas de hierro, bombas, y la madera y hierro galvanizado que resultará al desarmar las barracas del peonaje que trabajó en Imataca, y los tinglados de depósito de las máquinas y materiales.

Deduciendo de los inventarios que se levantaron en Imataco el valor de los edificios, terrenos y minas, queda para valor de las maquinarias y materiales que se utilizarán aquí. la suma de Bs. 758.098.75.

It seems likely that this material had been in use at Imataca, which is in the Delta Amacuro or Orinoco delta at the very easternmost end of Venezuela's coastline. The ore referred to in the company's name may well have been of iron. Certainly all the equipment purchased around 1920 for transport to Naricual was being moved by ship.

?-?-?T? d/w ?, cyls. ?, built by ? in ?

Ordered for ?

? w/n ?

10.9 Unidentified locomotives

Glover

2-6-2T d/w ?, cyls. ?, built by Glover Machine Works in 1925

Ordered for service in Puerto Rico

?

w/n 121645



Glover Machine Works no. 121645 of 1925 seems to have spent its career in Puerto Rico rather than Venezuela. It is not clear whether it was brought over to Caracas specifically to enter the transport museum where it now resides or came for some other short-lived purpose beforehand.



Baldwin

2-8-0 d/w 36", cyls. 14x18", built by Baldwin in 1927

Ordered for service in Puerto Rico at Central Pasto Viejo, but now in Caracas transport museum.

8 / E462

w/n 60181



Similarly, Baldwin 60181 was also a resident of Puerto Rico.



Lima

There are reputed to be two Shays partly sunk near the Isla de Aves, according to <https://www.steamlocomotive.info/country.cfm?which=venezuela>. Supposedly these were nos. 6 and 7 of an erstwhile Antilles Steam Dockyard, no further information has been found to confirm this.

Tubize

750mm gauge.

??? d/w ?, cyls. ?, built by Tubize in 1883

Ordered via Cockerill of Seraing for *Henrique et Cie.*, Venezuela.

? w/n 563

? w/n 564

3' 0" gauge.

0-6-0T d/w ?, cyls. ?, built by Tubize in 1922

Ordered for Delins, Venezuela.

5 w/n 1847

Hunslet

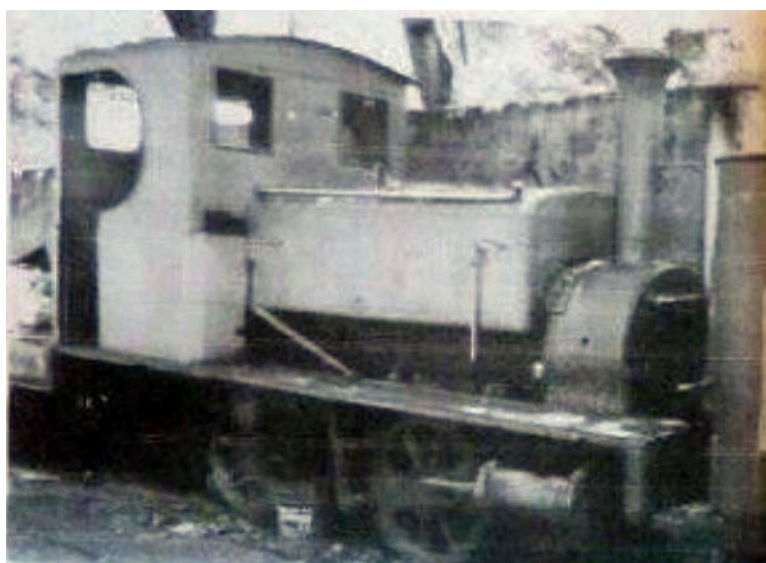
Gauge 3' 6".

The photo below appeared on the internet as if the loco had been associated with the *FC de Paraguachi* on the Isla Margarita, though that seems unlikely. Nothing is known of this engine, except that it still exists at the Museum of Transport in Caracas.

0-4-0ST d/w ?, cyls. ?, built by Hunslet in

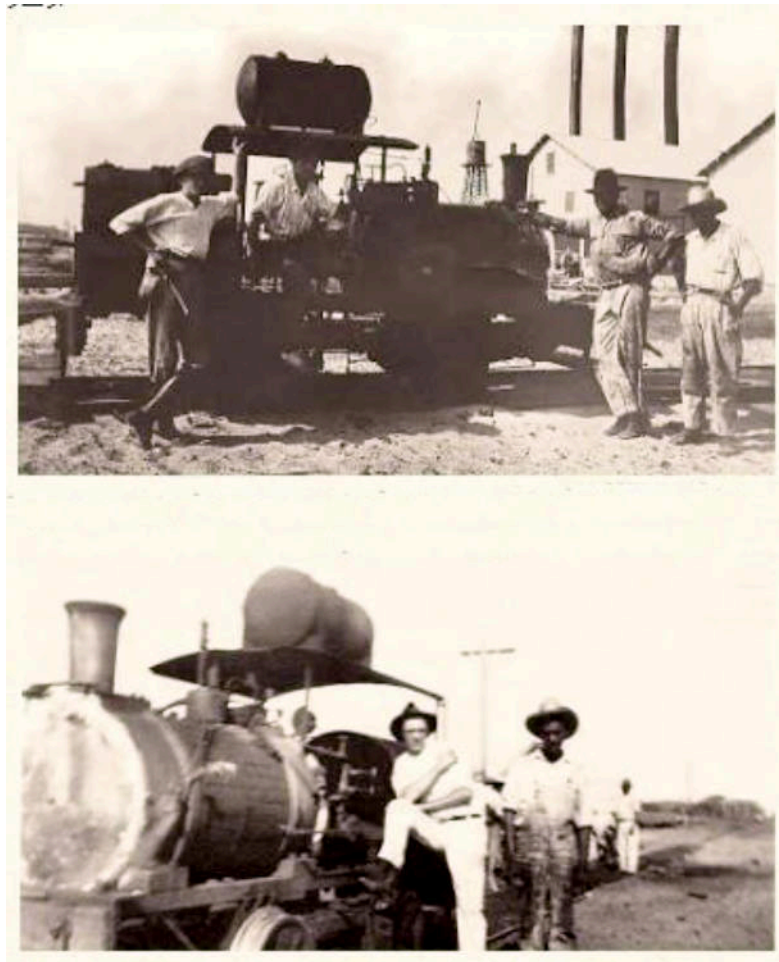
Rob Dickinson's International Steam website says that this is Hunslet 475 but Brian Rumary's Hunslet list gives that as delivered to John A. Broan & Co. Ltd. on standard gauge as no. 1 'ATLAS'.

? w/n 475?

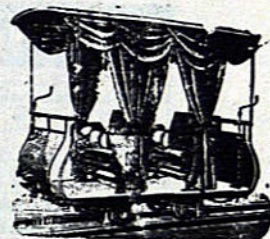
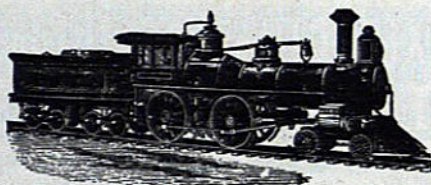
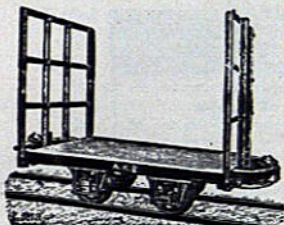


Lagunillas á Salinas

These photos taken at Lagunillas – Salinas in 1929, appear to show a Bell geared loco. Nothing is known about this railway, though Lagunillas appears to be close to the north-east coast of the Gulf of Maracaibo. It may have been an oilfield line. The original caption said: "*Fue construida por el abuelo de Steve Williams para transportar hombres y suministros entre el puerto de la Salina y el puerto de Lagunillas. Esta linea de ferrocarril se construyo en algun momento a finales de 1920 o principios de 1930. Circa 1929.*" This is not the Bell loco mentioned earlier at the San Lorenzo refinery (section 10.8.7) for that one had outside frames on 2- 0" gauge whereas this one has inside frames on a wider gauge.



This German-built 0-4-0T has a Krauss look to it. It is clearly in a lighter livery than black; the wheels are large enough to imply 'main-line' use, and the vehicle behind is clearly designed to carry passengers. Additionally, the plaque on the boiler side implies that it might have been named. The obvious conclusion, though a tentative one at this stage, is that it was one of the fourteen small Krauss engines used by the *Tranvía á Vapor de Güigüe*.



ARTHUR KOPPEL

FABRICA DE FERROCARRILES PORTATILES Y FIJOS

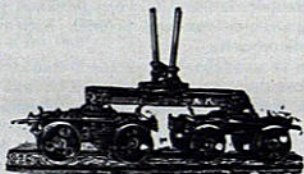
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Agentes en el Zulia y Estados contiguos:—BECKMANN Y ANDRESEN—MARACAIBO

10.10 Appendices

10.10.1 Bolivar Railway rules for loco crews 1906

DEPARTAMENTO DE LOCOMOTORAS

SERVICIO DE MAQUINISTAS Y FOGONEROS

Servicio en las Estaciones

Artículo 70. Los maquinistas y fogoneros en servicio del tráfico deberán tener su locomotora lista para el servicio de las maniobras una hora antes de la fijada para la salida del tren que tenga que conducir.

Artículo 71. Los maquinistas en todo lo que se refiere a su máquina, roturas, reparaciones, es decir, la parte técnica, deben hacer sus reportes y recibir instrucciones del Superintendente de Locomotoras; pero en asuntos referentes al movimiento de trenes están bajo las órdenes del Departamento del Tráfico y reciben instrucciones del Jefe de Tráfico, Jefe de Estación o Conductor.

Artículo 72. Antes de salir del taller, el maquinista tiene que asegurarse de que la máquina esté provista de los útiles, herramientas y lámparas necesarios, inspeccionar todo el movimiento de la máquina, revisar los frenos, examinar el acopio de agua, carbón y aceite. No se aceptará ninguna excusa por descuido en estas formalidades.

Artículo 73. El tiempo que la máquina permanezca en una Estación o parada en cualquier punto, la palanca de cambio de marcha debe estar en el punto muerto y el freno apretado.

Artículo 74. Se prohíbe terminantemente al maquinista hacer maniobras sin fogonero o persona que lo sustituya en el manejo del freno; y bajo ninguna circuns-

tancia deben el maquinista y fogonero ausentarse de su máquina, ambos al mismo tiempo. El maquinista no puede ausentarse de su máquina sino por causa especial.

Artículo 75. Todo maquinista o fogonero que, nombrado para algún servicio, no se halle en su puesto en la hora fijada, será suspendido. El que se halle en estado de embriaguez, bien en la Estación o bien en el servicio, será despedido y entregado a las autoridades.

Artículo 76. Los maquinistas y fogoneros deben conformarse absolutamente con las órdenes de los Jefes de Estación en lo relativo a la permanencia y maniobras que hayan de verificar en la Estación y son responsables de las faltas que cometan al ejecutar dichas maniobras.

Artículo 77. No podrán salir de una Estación hasta que el Jefe o Encargado de ella haya dado la señal y el Conductor la haya repetido.

Artículo 78. Para todas las maniobras deberán tocar el silbato antes de ponerse en movimiento, andar despacio y tener cuidado de examinar las agujas antes de pasar por ellas.

Artículo 79. A la señal de marcha y después de tocar el silbato, el maquinista pondrá su máquina en movimiento, de manera que el tren no experimente ninguna sacudida al salir de la Estación y tener asimismo cuidado en todo el trayecto, para evitar las sacudidas.

Artículo 80. Los maquinistas están sujetos a la acción de la autoridad por accidentes que resulten de su imprevisión o descuido; las penas o multas que aquella les imponga nada tiene que ver con la que a su vez determine esta Empresa.

Artículo 81. Se les prohíbe terminantemente dejar montar a persona alguna en la máquina que no vaya provista de un permiso firmado por el Superintendente de Locomotoras, a no ser por virtud de órdenes del Jefe de Tráfico.

Los empleados autorizados para subir a la máquina son: el Inspector Nacional del Ferrocarril, en su carácter de funcionario público, el Administrador, Jefe del Tráfico, los Inspectores de la línea y los Conductores; pero tanto el maquinista como el fogonero se abstendrán, en marcha, de toda conversación con las personas que vayan en la máquina.

Artículo 82. Durante el trayecto el maquinista debe respetar las órdenes recibidas del Conductor. Si ocurriese parada por cualquier motivo, no volverá a ponerse en marcha sin antes recibir la señal de dicho empleado; en una palabra, obedecerá completamente al Jefe del tren en lo que no se oponga a la conservación de su máquina.

Artículo 83. Maquinista y fogonero permanecerán vigilantes, en todo el tiempo de marcha, a las señales que le pueden ser transmitidas por los empleados de la vía y los del tren, y se sujetarán a ellas estrictamente.

Artículo 84. La velocidad de las máquinas debe ser regular y uniforme; al efecto, el maquinista deberá calcular su llegada a las Estaciones de conformidad con la velocidad anotada en el cuadro de marcha, sin forzar la velocidad con el objeto de ganar tiempo perdido.

Artículo 85. Se prohíbe terminantemente la excesiva marcha de los trenes o de llegar a las Estaciones con anticipación a la hora señalada por el cuadro de marcha.

Artículo 86. El maquinista vigilará constantemente en marcha el mecanismo de su máquina, la tensión del vapor y el nivel de agua de la caldera. No deberá, para obtener mayor presión, tocar jamás las balanzas de la válvula de seguridad.

Artículo 87. El maquinista debe asegurarse frecuentemente y en particular al romper la marcha, del estado del tren que conduce y de si está completo.

En el caso de que algún enganche llegare a romperse y a dejar el tren fraccionado, el maquinista deberá obrar con la mayor prudencia, evitando que la parte desenganchada choque violentamente con la primera sección; sólo cuando aquélla haya perdido su velocidad se acercará con precaución.

Artículo 88. En el caso de descarrilamiento, la maniobra necesaria estará a cargo del maquinista. El Conductor cuidará de protegerle con las señales del caso.

Artículo 89. Al entrar en curvas y a la proximidad de las Estaciones, como también de los puntos de la vía en que se están haciendo reparaciones, deberá el maquinista anunciar la aproximación de la máquina o tren por medio del silbato.

Artículo 90. El maquinista por su parte hará, cuando sea necesario, las señales suficientes, sirviéndose del silbato de la máquina para advertir:

- 1º Que se pone en marcha o se arriba a una Estación:—Un silbido prolongado.
- 2º Alarma:—Varios silbidos sucesivos.
- 3º Paso libre:—Un silbido prolongado o varios si no se obedece a la señal.
- 4º Atención:—Un silbido menos prolongado.
- 5º Apretar los frenos:—Dos silbidos cortos.
- 6º Aflojar los frenos:—Un silbido corto.
- 7º Parada del tren—Alto:—Dos silbidos cortos, repetidos con precipitación.

Artículo 91. *Precaución especial.*—Los maquinistas deben usar del mayor cuidado en tener sujeción y poder predominar su tren en los puntos de descenso, tal como del Km. 85¼ a Barquisimeto, del Km. 61¼ a Tacarigua, de la Estación de Duaca a la de Licua, y de los kilómetros siguientes: del 40½ al 52¼, del 19½ al 17, del 8 al 7, como en cualquier otro punto de la línea que a su juicio sea necesario o que esté en reparación. También deberán acortar la velocidad del tren a la aproximación de los desvíos, más especialmente cuando tengan que atacar las agujas de frente o de punta.

Artículo 92. Los maquinistas y Conductores deben tomar en consideración que las vidas de los pasajeros y el personal de los trenes, como también la propiedad de la Empresa, están confiados a sus cuidados y que esta Empresa recomienda y ordena que se servirán en toda ocasión de la más exquisita vigilancia y tomarán toda la circunspección posible.

Artículo 95. En cualquiera y todo caso de duda o incertidumbre se tomará el curso más seguro y que no deja lugar a ningún riesgo.

LA ADMINISTRACIÓN.

Aroa: 1º de julio de 1906.

A translation into English of these rules

LOCOMOTIVE DEPARTMENT SERVICE OF DRIVERS AND FIREMEN Service at Stations

Article 70. Drivers and firemen in traffic service must have their locomotive ready for shunting one hour before the scheduled time for the departure of their train.

Article 71. Drivers, in everything that refers to their machine, breakages, repairs, that is, the technical part, must make their reports and receive instructions from the Locomotive Superintendent; but in matters related to the movement of trains, they are under the orders of the Traffic Department and receive instructions from the Chief of Traffic, Station-master or the Guard.

Article 72. Before leaving the workshop, the driver has to make sure that the machine is provided with the necessary tools, tools and lamps, inspect all the movement of the machine, check the brakes, examine the stock of water, coal and oil. No excuse for carelessness in these formalities will be accepted.

Article 73. The time the machine remains in a station or stopped at any point, the reverser must be in mid-gear and the brake applied.

Article 74. The driver is strictly forbidden to shunt without a fireman or person who substitutes for him in handling the brake; and under no circumstances should the driver and the fireman be absent from his machine both at the same time. The driver cannot be absent from his machine except for a special cause.

Article 75. All drivers or firemen who, appointed for some service, are not at their post at the appointed time, will be suspended. Anyone who is in a drunken state, either at the station or on duty, will be fired and handed over to the authorities.

Article 76. The drivers and firemen must comply absolutely with the orders of the Station-masters regarding the permanence and shunting that they have to verify in the Station and are responsible for the faults they commit when executing said shunting.

Article 77. They may not leave a Station until the Station-master or manager has given the signal and the driver has repeated it.

Article 78. For all shunting they must blow the whistle before moving, move slowly and be careful to examine the rails before passing through sets of points.

Article 79. At the starting signal and after blowing the whistle, the driver will put his machine in motion, so that the train does not experience any shaking when leaving the Station, and also be careful throughout the journey, to avoid slips/jerkiness.

Article 80. Drivers are subject to the action of the authority for accidents that result from their lack of foresight or carelessness; the penalties or fines imposed on them have nothing to do with the one determined by this Company.

Article 81. It is strictly forbidden to let anyone ride on the machine that is not provided with a permit signed by the Locomotive Superintendent, except by virtue of orders from the Chief of Traffic. The employees authorized to get on the machine are: the National Railroad Inspector, in his capacity as a public official, the Administrator, Chief of Traffic, the Line Inspectors and the Drivers; but both the driver and the fireman will abstain, in the process, from any conversation with the people who are in the machine.

Article 82. During the journey, the driver must respect the orders received from the guard. If stoppage occurs for any reason, he will not start again without first receiving the signal from the said employee; in a word, he will obey completely the Guard of the fireman will remain vigilant, throughout the journey, to the signals that can be transmitted by track workers and those of the train, and will be strictly subject to them.

Article 84. The speed of the locomotives must be regular and uniform; To this end, the driver must calculate his arrival at the Stations in accordance with the speed recorded in the running chart, without forcing speed in order to gain lost time.

Article 85. Excessive train running or arriving at the Stations in advance at the time indicated by the running chart is

strictly prohibited.

Article 86. The driver will constantly monitor the mechanism of his machine, the steam pressure and the water level of the boiler. In order to obtain higher pressure, you should never touch the scales of the safety valve.

Article 87. The driver must make sure frequently and particularly during stops, the state of the train he is driving and whether it is complete.

In the event that a coupling breaks and leaves the train split, the driver must act with the greatest prudence, avoiding that the unhooked part collides violently with the first section; only when it has lost its speed will he approach with caution.

Article 88. In the case of derailment, the necessary manoeuvres will be in charge of the driver. The Driver will take care to protect ythe train with the appropriate signals.

Article 89. When entering curves and in the vicinity of the Stations, as well as the points of the road where repairs are being made, the driver must announce the approach of the machine or train by means of the whistle.

Article 90. The driver for his part will, when necessary, make sufficient signals, using the whistle of the machine to warn:

1st. Startsing up or arriving at a Station: —A prolonged whistle.

2nd. Alarm: —Several successive whistles.

3rd. Free passage: —A prolonged whistle, or several if the signal is not obeyed.

4th. Attention: —A less prolonged whistle.

5th. Squeeze the brakes: —Two short whistles.

6th. Loosening the brakes: —A short whistle.

7th. Train stop — Stop: —Two short whistles, repeated hastily.

Article 91. Special precaution. — Machinists must use the utmost care in having restraint and being able to control their train at the points of descent, such as from Km. 85¼ to Barquisimeto, from Km. 61¼ to Tacariguti, from Duaca Station to Licua Station, and the following kilometers: from 40½ to 52¼, from 19¼ to 17, from 8 to 7, and at any other point on the line that in your judgment is necessary or is in repair. They will also have to reduce the speed of the train when approachingGuards must take into consideration that the lives of passengers and train personnel, as well as the property of the Company, are entrusted to their care and that this Company recommends and orders that they be served at all times.of the most exquisite vigilance and will take all possible circumspection.

Article 95. In any and all case of doubt or uncertainty, the safest course will be taken and that leaves no room for any risk.

THE ADMINISTRATION.

Aroa: July 19, 1906.

10.10.2 The *FC del Este*

Background

Source [11] gathered a number of references to this railway, which were set out on pages 44-48 of that paper. They are reproduced here, in the original Spanish and with an English auto translation. Three particular references to locomotives, or to the railway being of a narrow gauge, have been emphasised in bold type.

5. El Ferrocarril Caracas-Petare (1859/1864)

El 10 de enero de 1859, la Convención Nacional sancionó un contrato para la construcción de un ferrocarril de corto alcance, que uniría el casco urbano de Caracas con la población de Petare. Con respecto a este Ferrocarril de Caracas-Petare, según parece, el historiador Leszek Zawisza, señala que, en 1859, salió a la luz un folleto, con el título *"Los Empresarios del Ferrocarril de Petare al Público"*, *"que explicaba la importancia de esta línea, su costo y rentabilidad y daba la noticia que será estudiado por los ingenieros norteamericanos Martín C. Bradley y H.A. Dewitt con gran experiencia en este campo"*.

On January 10, 1859, the National Convention sanctioned a contract for the construction of a short-range railway, which would link the urban area of Caracas with the population of Petare. With respect to. this Caracas-Petare Railway, it seems, the historian Leszek Zawisza, points out that, in 1859, a brochure came to light, with the title *'those Entrepreneurs of the Petare Railway to the Public'*, *"which explained the importance of this line , its cost and profitability and gave the news that it will be studied by the North American engineers Martín C. Bradley and H.A. Dewitt with great experience in this field"*

Lo cierto es que este Ferrocarril Caracas-Petare fue tomado muy en serio, a pesar de la inestabilidad política reinante en las fechas en que se planteó, cuando el estado de guerra había recrudecido y el conflicto federalista (con todas las características de una verdadera guerra civil) paralizaba o dañaba los esfuerzos de desarrollo. La situación había llegado a un punto tal que, el 19 de julio de 1861, el gobierno, para justificar la política de represión, que estaba decidido a emprender contra los revolucionarios (liberales), emitió un Decreto en el que se declaraba *"que la guerra que hacían las partidas armadas que infestaban los campos y amenazaban las poblaciones era una guerra social"* En esos días, el 17 de julio, había llegado a Caracas el señor Iribarren, recién nombrado Ministro de Hacienda; cartera que asumió en condiciones críticas, con las arcas del tesoro Público completamente exhaustas.

The truth is that this Caracas-Petare Railway was taken very seriously, despite the political instability prevailing at the time it was proposed, when the state of war had intensified and the federalist conflict (with all the characteristics of a true war civil society) paralyzed or damaged development efforts. The situation had reached such a point that, on July 19, 1861, the government, in order to justify the policy of repression, which it was determined to undertake against the (liberal) revolutionaries, issued a decree in which it was declared *"that the war waged by the armed parties that infested the fields and threatened the towns was a social war"* In those days, on July 17, Mr. Iribarren had arrived in Caracas, recently appointed Minister of Finance, a portfolio that he assumed in critical conditions, with the Public Treasury coffers completely exhausted.

A pesar de todos estos condicionamientos sociopolíticos, la Compañía concesionaria, que se denominó Ferrocarril del Este, había iniciado, sin demora, la construcción de la vía, tendiendo varios kilómetros de rieles. Incluso, llegó a encargarse una locomotora a una empresa europea, que fue enviada por piezas y pudo armarse en la misma ciudad de Caracas. Las pruebas que efectuó la Compañía, con **la flamante locomotora**, conmocionaron a la población. El ensayo oficial se celebró el 24 de Julio de 1961 y asistieron al mismo las principales personalidades de la ciudad y un numeroso público".

Despite all these socio-political conditions, the concessionary company, which was called Ferrocarril del Este, had started, without delay, the construction of the road, laying several kilometers of rails. He even ordered a locomotive from a European company, which was sent in pieces and could be assembled in the city of Caracas itself. The tests carried out by the Company, with **the brand new locomotive**, shocked the population. The official rehearsal was held on July 24, 1961 and was attended by the main personalities of the city and a large audience.

En 1862, bajo la tercera administración del General José Antonio Páez y siendo Secretario General Pedro José Rojas,

hallamos al ingeniero Roudier, quien presenten años atrás el proyecto de túnel a través del Avila, dirigiendo las obras del Ferrocarril del Este, el cual después de una espectacular exhibición ante las autoridades de la Capital, había quedado paralizado En un año, el célebre ingeniero francés concluyó un tramo de dos kilómetros, desde Caracas hasta Sabana Grande, y de inmediato puso el ferrocarril en funcionamiento. Para la culminación de esta obra, la Compañía del Ferrocarril, iniciada con el contrato de 1858, que sólo contaba con un reducido capital de accionistas particulares, recibió una subvención del Gobierno de 50.000 pesos".

In 1862, under the third administration of General José Antonio Páez and Pedro José Rojas being Secretary General, we find the engineer Roudier, who years ago presented the tunnel project through the Avila, directing the works of the Eastern Railway, which after a spectacular exhibition before the authorities of the Capital, had been paralyzed In a year, the famous French engineer completed a two-kilometer stretch, from Caracas to Sabana Grande, and immediately put the railway into operation. For the culmination of this work, the Railway Company, started with the 1858 contract, which only had a small capital from private shareholders, received a government subsidy of 50,000 pesos.

A lo largo del año 1863, la guerra continuaba a impulsos de la revolución federalista¹¹⁰, aunque eventualmente, en Caracas, se abrían pequeños paréntesis a las intrigas y alarmas, que permitían promover y celebrar los adelantos en el Ferrocarril del Este y la apertura de los trabajos para el alumbrado por medio de gas carbónico, que constituía un avanzado proyecto para la Capital en esos tiempos. Finalmente, el 22 de mayo de 1863 se firmó el Tratado de Coche que trajo la paz que, en definitiva, todos deseaban¹². El general Falcón accedió a la Presidencia.

Throughout the year 1863, the war continued at the impulse of the federalist revolution¹¹⁰, although eventually, in Caracas, small parentheses were opened to intrigues and alarms, which allowed promoting and celebrating the advances in the Eastern Railway and the opening of the works for lighting by means of carbon gas, which was an advanced project for the Capital at that time. Finally, on May 22, 1863, the Treaty of Coche was signed, which brought the peace that, ultimately, everyone wanted¹² General Falcón acceded to the Presidency.

A finales de del año 1863, mientras el General Falcón se ocupaba de los desordenes surgidos en Cojedes y Barquisimeto, el Gabinete de Caracas celebró la conclusión de un nuevo tramo del Ferrocarril del Este, que comprendía el trayecto desde Sabana Grande a El Recreo. El historiador González Guinán, dejó constancia del hecho en pocas palabras: *"La inauguración se efectuó a las 9 y 20 minutos del 15 de noviembre, asistiendo al acto el Gabinete Ejecutivo, el Consejo de Estado, el Arzobispo, el cuerpo diplomático y muchas otras personas importantes. Se pronunciaron entusiastas discursos por el Ministro de Fomento, el General Mejía, el Doctor Juan de Dios Morales, el señor E.*

Rendón y otros. Ese ferrocarril se conservó por algún tiempo como línea de placer, paralizándose luego". Se trataba de **un ferrocarril de vía estrecha**, que partía del Arauco (Caracas) y se extendía a lo largo del Valle de Caracas, por tres kilómetros y doscientos ochenta metros (3.280m.), hasta el lugar denominado El Recreo¹¹⁴. Funcionó hasta diciembre de 1864, cuando se hizo un esfuerzo por continuar los trabajos. Luego fue abandonado por completo.

At the end of 1863, while General Falcón was dealing with the disorders that had arisen in Cojedes and Barquisimeto, the Caracas Cabinet celebrated the completion of a new section of the Eastern Railway, which included the route from Sabana Grande to El Recreo. The historian González Guinán recorded the fact in a few words: *"The inauguration took place at 9:20 on November 15, with the Executive Cabinet, the Council of State, the Archbishop, the diplomatic corps and many others attending the event. important people. Enthusiastic speeches were made by the Minister of Public Works, General Mejía, Doctor Juan de Dios Morales, Mr. E. Rendón and others. That railway was preserved for some time as a pleasure line, later being paralyzed"*. It was **a narrow gauge railway**, which started from Arauco (Caracas) and extended along the Valley of Caracas, for three kilometers and two hundred and eighty meters (3,280m.), to a place called El Recreo. It functioned until December 1864, when an effort was made to continue the works. It was then completely abandoned.

Edward B. Eastwick, el ex-diplomático inglés y comisionado del Empréstito de 1864, que ya mencionamos, en su estadía en la capital de Venezuela, tuvo ocasión de ver los restos del Ferrocarril del Este, anotándolo en sus memorias: Edward B. Eastwick, the former English diplomat and commissioner of the 1864 Loan, which we already mentioned, during his stay in the capital of Venezuela, had the opportunity to see the remains of the Eastern Railway, writing it down in his memoirs:

"Lo que más llamó mi atención fue el Ferrocarril del Este cuyo término está justamente más allá del puente ya men-

cionado (en El Recreo). Me bajé del caballo para inspeccionar la estación, pero como ésta se hallaba completamente desierta, tuve que trepar por una cerca de quince pies de altura para entrar en ella. Los rieles habían sido tendidos en un trayecto de media milla, y estaban cubiertos de yerbajos y malezas. Se veían **locomotoras** y vagones, junto con montones de leños para durmientes, tristes emblemas y sopor en que ha caído la empresa, y del cual parece dudoso que pueda despertar alguna vez".

*"What caught my attention the most was the Ferrocarril del Este whose terminus is just beyond the aforementioned bridge (in El Recreo). I got off my horse to inspect the station, but since it was completely deserted, I had to climb up a about fifteen feet high to get in. The rails had been laid for half a mile, and were overgrown with weeds and weeds **Locomotives** and wagons were to be seen, together with heaps of logs for sleepers, sad emblems, and torpor into which the company has fallen, and from which it seems doubtful whether it can ever wake up."*

"En Petare, la posada estaba llena de gente, que fumaba y jugaba al billar, y el villorrio, en términos generales, ofrecía una apariencia más próspera y activa de lo que me imaginaba. Hay unas quinientas casas en la aldea, y muy bellas fincas en sus inmediaciones. Sin embargo, jamás podría contarse con el tráfico suficiente para resarcirse (sic) del desembolso que ocasionaría la construcción de un ferrocarril, a menos que la línea fuera continuaba hasta Valencia".

"At Petare the inn was full of people, smoking and playing billiards, and the village, on the whole, presented a more prosperous and active appearance than I imagined. There are about five hundred houses in the village, and very beautiful ones." farms in its vicinity. However, there could never be enough traffic to recover (sic) the expense that the construction of a railway would cause, unless the line was continued to Valencia"

Para 1865, el Ministerio de Fomento, en su memoria anual, habla del abandono del Ferrocarril del Este; lo que llevó a la firma de un nuevo Convenio, esta vez con Arturo Clarke, que no dio resultado, y más tarde, en 1866, otro con A. J. Jerusum, al cual se le autorizó a continuar la vía hasta Guarenas o hasta Santa Lucía, según su criterio o conveniencia. Todo fue inútil'.

For 1865, the Ministry of Public Works, in its annual report, speaks of the abandonment of the Eastern Railway; which led to the signing of a new Agreement, this time with Arturo Clarke, which did not work, and later, in 1866, another with A. J. Jerusum, who was authorized to continue the road to Guarenas or to Santa Lucía, at your discretion or convenience. It was all useless.'

Un año más tarde, otro testigo ocular nos dejó un testimonio del lamentable abandono y fracaso de este Ferrocarril. Se trata de la francesa Jenny de Tallenay, quien en sus Recuerdos de Venezuela, describe en estos términos su visita a las minas de lo que fue el Ferrocarril del Este:

A year later, another eyewitness left us a testimony of the unfortunate abandonment and failure of this Railway. It is about the French Jenny de Tallenay, who in her Recollections of Venezuela, describes in these terms her visit to the mines of what was the Eastern Railway:

"Una vieja pared agrietada, horadada por una pequeña puerta desvencijada, que lleva esta pretenciosa inscripción: Ferrocarril del Este. Hacemos parar nuestro vehículo y echamos una ojeada en el misterioso recinto. Divisamos allí un viejo vagón, lastimosamente inclinado sobre uno de sus lados, casi totalmente reventado. Algunos trozos de rieles están desparramados aquí y allá entre las matas de hierba. Era todo lo que quedaba para recordar el Ferrocarril del Este. Se nos contó que algunos años antes una estación había sido establecida en este punto, lo mismo que una vía férrea para unir a Caracas con Sabana Grande. Un día el tren había descarrilado y nadie había intentado de levantarlo. La empresa estaba condenada. La opinión pública la había acogido por otra parte con indiferencia..."

"An old cracked wall, pierced by a small rickety door, bearing this pretentious inscription: Eastern Railway. We stop our vehicle and take a look into the mysterious enclosure. We spot there an old carriage, leaning pitifully on one side, almost entirely blown up. A few pieces of rail are scattered here and there among the tufts of grass. It was all that remained to remind us of the Eastern Railway. We were told that some years before a station had been established at this point, as well as a railway to unite Caracas with Sabana Grande. One day the train had derailed and no one had tried to lift it. The company was doomed. Public opinion had otherwise received it with indifference..."

El año de 1868, el escritor y viajero alemán, Friedrich Gerstácker, en la narración de su viaje por Venezuela, hace unos comentarios curiosos sobre un ferrocarril abandonado, que tuvo ocasión de conocer en Caracas, aunque no estoy se-

guro de que se tratase de este Ferrocarril del Este, pero pareciera que sí.

In the year 1868, the German writer and traveler, Friedrich Gerstäcker, in the narration of his trip through Venezuela, makes some curious comments about an abandoned railway, which he had the opportunity to see in Caracas, although I am not sure that it was this Eastern Railroad, but it seems so.

"Me quedé asombrado cuando ya de lejos percibí una locomotora y vi detenidos los vagones de pasajeros sobre el andén un poco levantado, los rieles partían de allí, pero el tren ya no; y cuando nos acercamos, descubrí algo que nunca hubiera creído posible: un vagón de pasajeros techado con ladrillos rojos. Yo me había reído cuando en Arkansas encontré vagones cubiertos con tejas, y aquí eran ladrillos. Era, en verdad, bien divertido de ver y con toda probabilidad ese vagón era un ejemplar único en el mundo entero que Barnum, en Nueva York no debería dejar de adquirir. El espectáculo era realmente muy gracioso, un vagón con ladrillos, de manera que tiene el aspecto de un establo o de un lavadero. Además ahora ya no se lo utiliza y, como se me dijo, los serenos lo usan ocasionalmente para dormir. El ferrocarril mismo que antes sólo había hecho un viaje de prueba de algunas leguas, nunca había sido terminado. Había una taquilla en el edificio de la estación al igual que en el Ministerio de Finanzas, pero tan vacía como la de allá No había habido dinero, y lo ya hecho se deshacía, el material se pudría o se oxidaba y también esta área, como todas las demás, le estaría reservada a las futuras generaciones para que no les faltara que hacer.

"I was amazed when I perceived a locomotive from afar and saw the passenger cars stopped on the slightly raised platform, the rails started from there, but the train no longer; and when we got closer, I discovered something that I would never have believed possible: "A red-brick-roofed passenger car. I had laughed when I found shingle-covered cars in Arkansas, and here it was brick. It was, indeed, quite amusing to look at, and in all probability that car was unique in the world." Barnum in New York shouldn't miss out on buying. The show was really quite funny, a wagon with bricks in it, so it looks like a barn or a laundry room. Besides, it's not used anymore now, and as I'm he said, the night watchmen occasionally use it to sleep in. The railway itself, which had only made a trial run of a few leagues before, had never been finished. There was a ticket office in the station building as well as in the Ministry of Finance. Finances, but as empty as the one over there There had been no money, and what had already been done fell apart, the material rotted or oxidized, and this area, like all the others, would be reserved for fidgety generations so that they would not lack do.

6. Derogaciones de contratos ilusorios (1860)

6. Repeals of illusory contracts (1860)

Bajo la Presidencia de Manuel Felipe Tovar, en 1860, se derogó la Ley de 13 de Mayo de 1854, que autorizaba al Ejecutivo a celebrar contratos para obras de vialidad pública, mediante una escueta Ley relativa a dichos contratos y privilegios sobre ferrocarriles¹²⁰. Refiriéndose quizás a las últimas e infructuosas concesiones ferrocarrileras, el Secretario del Interior y Justicia, en su exposición ante el Congreso, a comienzos del año 1860, habla de la triste situación de la actividad de fomento en la República, que se halla *"reducido a la contratación de cuatro ferrocarriles ilusorios y tres caminos en suspenso..."*

Under the Presidency of Manuel Felipe Tovar, in 1860, the Law of May 13, 1854, which authorized the Executive to enter into contracts for public road works, was repealed by means of a concise Law relating to said contracts and privileges over railways¹²⁰. Referring perhaps to the last and unsuccessful railway concessions, the Secretary of the Interior and Justice, in his statement before Congress at the beginning of the year 1860, speaks of the sad situation of development activity in the Republic, which is *"reduced to the contracting of four illusory railways and three suspended roads..."*

10.10.3 Baldwin erecting drawings for Venezuelan locos available for purchase from the DeGolyer Library

Background

When the Baldwin works closed in 1956 C. W. Whitbeck was given permission to salvage what he could of the company's records and drawings. This was inevitably only a miniscule fraction of what had existed, but nevertheless is extremely valuable for researchers. Much of what he saved has now migrated to the DeGolyer Library of Southern Methodist University in Texas. Some is available online, whilst drawings and other items can be ordered.

Baldwin loco specification books

These hold a vast amount of information about individual batches of locos, though they were copied from microfilms which can make the identification of the appropriate pages more difficult – though not impossible – in some volumes. <https://digitalcollections.smu.edu/digital/collection/rwy/id/32>

Erecting drawings

About 4000 Baldwin general arrangement drawings are available – out of perhaps 50,000 or more. Lists – and other assets – can be found via https://txarchives.org/smu/finding_aids/00052.xml but note that it worth taking time to browse deeply, as the Txarchives and SMU libraries websites are not always easy to navigate.

Image services and permission to publish

<https://www.smu.edu/libraries/degolyer/using/images>

Reproduction fees

<https://www.smu.edu/libraries/degolyer/using/images/usage-fees>

Available drawings of Colombian engines

Low-res copies of those available online are displayed at the relevant points in this file. Details of those drawings and others are displayed below to assist anyone wishing to order high-res copies.

Index no.	Dwg. no.	Road name	Road no.	Year	Baldwin class and no.	Wheels	Dwg. type & size
355-25CX	12304	British Controlled Oil Fields Ltd.	'FALCÓN'	1926	06-11 1/3C 68-69	0-4-2	SE 26x66
355-25X	12305	British Controlled Oil Fields Ltd.	'FALCÓN'	1926	06-11 1/3C 68-69	0-4-2	CS 26x66
528A-26	8801	Central Azuc. del Zulia	2-3	1916	06-11C 27-28	2-4-0	SE/CS 3
162-3AX	10684	Gran de la Ceiba	8 'VALERA'	1922	06-16D 75	0-6-0	SE 27x68
162-3BX	10685	Gran de la Ceiba	8 'VALERA'	1922	06-16D 75	0-6-0	CS 27x68

10.11 Index to locos by builder

Works	Year	Wheels	Gauge	Owner and number and name	Section
Baldwin					
13846	1893	2-8-2ST	3' 0"	<i>Gran FC de la Ceiba</i> 1 'TRUJILLO'	10.4.2
14010	1894	0-6-0STT	Metre	<i>Gran FC de Tachira</i> 1 'TACHIRA'	10.3.1
14014	1894	0-6-0ST	75cm	<i>Tranvía de Bella Vista</i> 4 'VENEZUELA'	10.5.1
14151	1894	0-6-0STT	Metre	<i>Gran FC de Tachira</i> 2 'ZULIA'	10.3.1
14467	1895	0-6-0STT	Metre	<i>Gran FC de Tachira</i> 3 'VENEZUELA'	10.3.1
14607	1895	0-6-0STT	Metre	<i>Gran FC de Tachira</i> 4 'SAN CRISTOBAL'	10.3.1
14945	1894	0-6-0STT	3' 0"	<i>Gran FC de la Ceiba</i> ? 'VENEZUELA'	10.4.2
15063	1894	0-6-0STT	3' 0"	<i>Gran FC de la Ceiba</i> ? 'RONCAYOLO'	10.4.2
15833	1898	0-4-4T	3' 0"	<i>FC de La Vela a Coro</i> 2 'SIMON BOLIVAR'	10.4.5
20125	1902	0-6-0STT	Metre	<i>Gran FC de Tachira</i> 5 'TARIBA'	10.3.1
24067	1904	0-6-0STT	Metre	<i>Gran FC de Tachira</i> 7 'PADRE BLANCO'	10.3.1
40537	1913	2-6-2T	Metre	<i>Gran FC de Tachira</i> 8 'ENCONTRADOS'	10.3.1
40539	1913	2-6-2T	Metre	<i>Gran FC de Tachira</i> 9 'MARACAIBO'	10.3.1
40953	1913	2-8-2	3' 0"	New York & Bermudez Co. 10 (to Uintah Rly. 40)	10.7.2
43343	1916	2-4-0	3' 0"	<i>Central Zulia</i> sugar mill 2 'SUCRE'	10.7.10
43527	1916	2-4-0	3' 0"	<i>Central Zulia</i> sugar mill 3 'VICTORIA'	10.7.10
44427	1916	0-4-0ST	3' 0"	<i>Central Ceiba</i> sugar mill ?	10.7.10
55313	1922	0-6-0STT	3' 0"	<i>Gran FC de la Ceiba</i> 8 'VALERA'	10.4.2
56526	1923	0-6-0ST	3' 0"	New York & Bermudez Co. 10	10.7.2
56527	1923	0-4-0ST	3' 0"	New York & Bermudez Co. 11	10.7.2
58043	1924	0-6-0STT	Metre	<i>Gran FC de Tachira</i> 8 'COLÓN'	10.3.1
58327	1924	0-6-0STT	Metre	<i>Gran FC de Tachira</i> 9 'CUCUTA'	10.3.1
58416	1925	0-4-0ST	3' 0"	<i>Gran FC de la Ceiba</i> 2 'ESCUQUE'	10.4.2
58942	1926	2-4-4T	Metre	<i>FC de Santa Barbara a El Vigia</i> 6 'TACHIRA'	10.3.2
58943	1926	2-4-4T	Metre	<i>FC de Santa Barbara a El Vigia</i> 7 'ZULIA'	10.3.2
58999	1926	2-8-0	3' 0"	<i>Gran FC de la Ceiba</i> 9 'TRUJILLO'	10.4.2
59307	1926	0-6-0	2' 0"	Asiatic Petroleum Corporation ?	10.7.5
59308	1926	0-6-0	2' 0"	Asiatic Petroleum Corporation ?	10.7.5
59444	1926	0-4-2T	2' 6"	British Controlled Oilfields Ltd. 'ZULIA'	10.7.6
59445	1926	0-4-2T	2' 6"	British Controlled Oilfields Ltd. 'FALCON'	10.7.6
59637	1925	0-6-0STT	Metre	<i>Gran FC de Tachira</i> 10 'AMERICA'	10.3.1
60181	1927	2-8-0	2' 6"	Eastern Sugar Associates in Puerto Rico, Central Pasto Viejo 8 (reb. metre) later imported for Caracas Transport Museum	10.
60566	1928	0-4-4ST	Metre	<i>Gran FC de Tachira</i> 13 'CATATUMBO'	10.3.1
60610	1925	0-6-0STT	Metre	<i>Gran FC de Tachira</i> 11 'MARACAIBO'	10.3.1
60611	1925	0-6-0STT	Metre	<i>Gran FC de Tachira</i> 12 'La GRITA'	10.3.1
60691	1926	2-6-0	2' 6"	Asiatic Petroleum Corporation 'COLON no. 1'	10.7.5
60692	1926	2-6-0	2' 6"	Asiatic Petroleum Corporation 'COLON no. 2'	10.7.5
61821	1934	2-6-2T	3' 6"	<i>FC de Guanta a las minas de Naricual</i> 13 'PRESIDENTE GOMEZ'	10.2.5
62066	1937	2-4-4T	Metre	<i>FC de Santa Barbara a El Vigia</i> 10 'BOLIVAR'	10.3.2

Bell

209	?	0-4-0T geared	2' 0"	Shell San Lorenzo refinery ?	10.7.7
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BMAG/Schwartzkopff

9366	1928	2-8-2T	3' 6"	Gran FC de Venezuela ? 'BOLIVAR'	10.2.1
9367	1928	2-8-2T	3' 6"	Gran FC de Venezuela ? MIRANDA'	10.2.1
9595	1929	2-8-2T	3' 6"	Gran FC de Venezuela ? 'PAEZ'	10.2.1
9644	1929	2-8-2T	3' 6"	Gran FC de Venezuela ? 'URDANETA'	10.2.1
9976	1931	2-8-2T	3' 6"	Gran FC de Venezuela ? 'MARIÑO'	10.2.1

Beyer Peacock

2861	1887	0-4zz-2T	3' 6"	FC Pto. Cabello a Valencia 7	10.2.3
2862	1887	0-4zz-2T	3' 6"	FC Pto. Cabello a Valencia 8	10.2.3
2967	1888	0-6-2T	3' 0"	FC La Guaira a Caracas 9	10.4.1
3267	1890	0-6-2T	3' 0"	FC La Guaira a Caracas 11	10.4.1
3268	1890	0-6-2T	3' 0"	FC La Guaira a Caracas 12	10.4.1
2979	1888	0-6-2T	3' 0"	FC La Guaira a Caracas 10	10.4.1
3936	1887	0-4zz-2T	3' 6"	FC Pto. Cabello a Valencia 10	10.2.3

Black Hawthorn

425	1877	0-6-0	2' 0"	Bolivar Railway 9	10.6.1
426	1877	0-6-0	2' 0"	Bolivar Railway 10	10.6.1
651	1881	0-6-0T	3' 0"	FC La Guaira a Caracas ?	10.4.1
701	1882	0-6-0	2' 0"	Bolivar Railway 11	10.6.1
924	1887	0-4-0T	3' 6"	FC de Guanta a las minas de Naricual ?	10.2.5
925	1887	0-4-0T	3' 6"	FC de Guanta a las minas de Naricual ?	10.2.5
974	1889	0-6-0	2' 0"	Bolivar Railway 13	10.6.1
975	1889	0-6-0	2' 0"	Bolivar Railway 14	10.6.1

Cail

2267	1888	0-6-0T	3' 6"	FC de Guanta a las minas de Naricual ?	10.2.5
2268	1888	0-6-0T	3' 6"	FC de Guanta a las minas de Naricual ?	10.2.5
2269	1888	0-6-0T	3' 6"	FC de Guanta a las minas de Naricual ?	10.2.5

Canada Works

256	1873	0-6-0T?	2' 0"	Quebrada / SW of V Railway / Bolivar 1	10.6.1
257	1873	0-6-0T?	2' 0"	Quebrada / SW of V Railway / Bolivar 2	10.6.1
258	1873	0-6-0T?	2' 0"	Quebrada / SW of V Railway / Bolivar 3	10.6.1
259	1873	0-6-0T?	2' 0"	Quebrada / SW of V Railway / Bolivar 4	10.6.1
261	1875	0-6-0T	2' 0"	Quebrada ?	10.6.1
262	1875	0-6-0T?	2' 0"	Quebrada / SW of V Railway / Bolivar 5	10.6.1
263	1875	0-6-0T?	2' 0"	Quebrada / SW of V Railway / Bolivar 6	10.6.1

John Cockerill

1387	1883	0-6-0T	75cm?	FC del Sur/del Valle (sub-contracted to Tubize 563) ? '??'	10.6.1
1388	1883	0-6-0T	75cm?	FC del Sur/del Valle (sub-contracted to Tubize 564) ? '??'	10.6.1

James Cross

?	?	0-4-0T	Std.	The Central Railway Co. of Venezuela ?	10.1.1
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Decauville

164	1892	0-4-0T	75cm	El Callao gold mine ‘PORVENIR’	10.7.4
165	1892	0-4-0T	75cm	El Callao gold mine ‘PROVIDENCIA’	10.7.4

Dick Kerr

?	1884-5	0-6-0T	75cm	<i>FC de Carenero 1</i> ‘CARENERO’	10.5.1
?	1884-5	0-6-0T	75cm	<i>FC de Carenero 2</i> ‘RÍO CHICO’	10.5.1

Dübs

2179	1886	2-6-2T	3' 6"	<i>FC Central 3</i> ‘SILLA’	10.2.2
2180	1886	2-6-2T	3' 6"	<i>FC Central 4</i> ‘VILA’	10.2.2
2181	1886	?	3' 6"	<i>?FC Central ?</i> ‘?’	10.2.2
2182	1886	?	3' 6"	<i>?FC Central ?</i> ‘?’	10.2.2
2183	1886	?	3' 6"	<i>?FC Central ?</i> ‘?’	10.2.2
2184	1886	?	3' 6"	<i>?FC Central ?</i> ‘?’	10.2.2
2188	1887	2-6-2T	3' 6"	<i>FC Pto. Cabello a Valencia 1</i>	10.2.3
2189	1887	2-6-2T	3' 6"	<i>FC Pto. Cabello a Valencia 2</i>	10.2.3
2190	1887	2-6-2T	3' 6"	<i>FC Pto. Cabello a Valencia 3</i>	10.2.3
2191	1887	2-6-2T	3' 6"	<i>FC Pto. Cabello a Valencia 4</i>	10.2.3
2192	1887	2-6-2T	3' 6"	<i>FC Pto. Cabello a Valencia 5</i>	10.2.3
2193	1887	2-6-2T	3' 6"	<i>FC Pto. Cabello a Valencia 6</i>	10.2.3
2314	1887	4-6-0T	2' 0"	Bolivar Railway 12	10.6.1
2407	1888	0-6-0	3' 6"	<i>FC Central 2</i> ‘VENEZOLANA’	10.2.2
2764	1890	2-6-2T	3' 6"	<i>FC Pto. Cabello a Valencia 9</i>	10.2.3

Esslingen

4226	1929	Railmotor	3' 6"	<i>Gran Ferrocarril de Venezuela ?</i>	10.2.1
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Fives-Lille

2743	1889	0-6-0	Metre	<i>FC de Santa Barbara a El Vigia 1</i>	10.3.2
2744	1889	0-6-0	Metre	<i>FC de Santa Barbara a El Vigia 2</i>	10.3.2
2854	1891	2-6-0	Metre	<i>FC de Santa Barbara a El Vigia 4</i>	10.3.2
2855	1891	2-6-0	Metre	<i>FC de Santa Barbara a El Vigia 5</i>	10.3.2

Glover Machine Works

121631	1920	0-6-0T	3' 0"	<i>FC de Carenero 5</i> ‘BECERRA’	10.4.3
121645	1925	2-6-2T	3' 0"	Worked in Puerto Rico but now in Caracas transport museum	10.8.
131815	1920	0-6-0T	3' 6"	<i>FC Guanta a Naricual 1</i> ‘CAJIGAL’	10.2.5
131816	1920	0-6-0T	3' 6"	<i>FC Guanta a Naricual 2</i> ‘ANZOATEGUI’	10.2.5

Hanomag

6982	1913	2-6-0	3' 0"	<i>Gran FC de la Ceiba 7</i> ‘BOCONO’	10.4.2
9364	1924	0-4-0	2' 0"	Caribbean Petroleum Co. ?	10.7.7
9365	1924	0-4-0	2' 0"	Caribbean Petroleum Co. ?	10.7.7

Hartmann

1602	1889	2-6-2T	3' 6"	<i>Gran FC de Venezuela 3?</i> ‘TUY’	10.2.1
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1603	1889	2-6-2T	3' 6"	<i>Gran FC de Venezuela 4? 'ORINOCO'</i>	10.2.1
1604	1889	2-6-2T	3' 6"	<i>Gran FC de Venezuela 5? 'CABRIALES'</i>	10.2.1
1605	1889	2-6-2T	3' 6"	<i>Gran FC de Venezuela 6? 'ARAGUA'</i>	10.2.1
1606	1889	2-6-2T	3' 6"	<i>Gran FC de Venezuela 7 'GUARICO'</i>	10.2.1
1607	1889	2-6-2T	3' 6"	<i>Gran FC de Venezuela 8? 'PAO'</i>	10.2.1
1883	1892	4-4-4T	3' 6"	<i>Gran FC de Venezuela ? 'CABRIOLES'?</i>	10.2.1
1884	1892	4-4-4T	3' 6"	<i>Gran FC de Venezuela ? '?'</i>	10.2.1
1885	1892	4-4-4T	3' 6"	<i>Gran FC de Venezuela ? '?'</i>	10.2.1
1886	1892	4-4-4T	3' 6"	<i>Gran FC de Venezuela ? 'GUAIRA'</i>	10.2.1
2027	1894	4-4-4T	3' 6"	<i>Gran FC de Venezuela ? 'CARILON'</i>	10.2.1
2028	1894	4-4-4T	3' 6"	<i>Gran FC de Venezuela ? '?'</i>	10.2.1
2029	1894	4-4-4T	3' 6"	<i>Gran FC de Venezuela ? 'CONDOR'?</i>	10.2.1
4463	1921	2-8-4T	3' 6"	<i>Gran FC de Venezuela ? 'CARACAS'</i>	10.2.1
4464	1921	2-8-4T	3' 6"	<i>Gran FC de Venezuela ? 'MARACAY'</i>	10.2.1

R. & W. Hawthorn

1689	1876	0-6-6-0T	2' 0"	Quebrada 7 'El PRESIDENTE'	10.6.1
1690	1876	0-6-6-0T	2' 0"	Quebrada 8 'El LIBERATOR'	10.6.1
2111	1888	0-6-0T	3' 6"	<i>FC Central 5 'CONSTRUCTORA'</i>	10.2.2
2161	1890	0-6-6-0T	2' 0"	Quebrada 15 '?'	10.6.1

Hudswell Clarke

1591	1927	0-6-0ST	3' 0"	La Guaira port 'L.G.H.C.'	10.7.1
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Hunslet

346	1884	0-4-0ST	3' 0"	La Guaira & Caracas Rly. (for La Guaira port) 1	10.7.1
347	1884	0-4-0ST	3' 0"	La Guaira & Caracas Rly. (for La Guaira port) 2	10.7.1
389	1886	0-6-0ST	3' 0"	La Guaira Harbour Corporation 3 'PACIFICADOR'	10.7.1
390	1886	0-6-0ST	3' 0"	La Guaira Harbour Corporation 4 'REGENERADOR'	10.7.1
402	1886	0-4-0ST	3' 0"	La Guaira port ? 'PROGRESO'	10.7.1
403	1886	0-4-0ST	3' 0"	La Guaira port ? 'TIGRE'	10.7.1
1127	1913	0-6-4T	2' 0"	<i>FC Bolivar 7</i>	10.6.1
1128	1913	0-6-4T	2' 0"	<i>FC Bolivar 8</i>	10.6.1
1130	1913	0-4-0ST	2' 0"	<i>FC Bolivar ?</i>	10.6.1
1152	1915	2-6-2T	3' 6"	<i>FC Pto. Cabello a Valencia 5</i>	10.2.3
1455	1924	0-6-4T	2' 0"	<i>FC Bolivar 9</i>	10.6.1
1489	1925	0-6-4T	2' 0"	<i>FC Bolivar 10</i>	10.6.1

Kerr Stuart

1038	1909	2-6-2T	3' 6"	<i>FC Central 6 'ORINOCO'</i>	10.2.2
1039	1909	2-6-2T	3' 6"	<i>FC Central 7 '?'</i>	10.2.2
1259	1912	2-6-2T	3' 6"	<i>FC Central 8 'OCUMARE'?</i>	10.2.2
1299	1913	0-4-2T	3' 6"	<i>FC Central 9 'OCUMARE'?</i>	10.2.2
4085	1919	2-6-2T	3' 6"	<i>FC Central ? '?'</i>	10.2.2
4086	1919	2-6-2T	3' 6"	<i>FC Central ? '?'</i>	10.2.2

Kitson

3122	1888	0-6-2T	2' 0"	SWoV(B)R / Quebrada / Bolivar Rly. 1	10.6.1
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3123	1888	0-6-2T	2' 0"	SWoV(B)R / Quebrada / Bolivar Rly. 2	10.6.1
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Krauss

2169	1889	0-4-0T	60cm	<i>Tranvía a vapor de Güigüe 1</i>	10.6.2
2170	1889	0-4-0T	60cm	<i>Tranvía a vapor de Güigüe 2 'SANTA ANA'</i>	10.6.2
2171	1889	0-4-0T	60cm	<i>Tranvía a vapor de Güigüe 3</i>	10.6.2
2172	1889	0-4-0T	60cm	<i>Tranvía a vapor de Güigüe 4 'BOCA DEL RIO'</i>	10.6.2
2173	1889	0-4-0T	60cm	<i>Tranvía a vapor de Güigüe 5</i>	10.6.2
2174	1890	0-4-0T	60cm	<i>Tranvía a vapor de Güigüe 6</i>	10.6.2
2175	1890	0-4-0T	60cm	<i>Tranvía a vapor de Güigüe 7</i>	10.6.2
2178	1890	0-4-0T	60cm	<i>Tranvía a vapor de Güigüe 8 'GÜIGÜE'</i>	10.6.2
2349	1891	0-4-0T	60cm	<i>Tranvía a vapor de Güigüe 9</i>	10.6.2
2612	1891	0-4-0T	60cm	<i>Tranvía a vapor de Güigüe 10</i>	10.6.2
2613	1891	0-4-0T	60cm	<i>Tranvía a vapor de Güigüe 11</i>	10.6.2
2614	1891	0-4-0T	60cm	<i>Tranvía a vapor de Güigüe 12</i>	10.6.2
2615	1891	0-4-0T	60cm	<i>Tranvía a vapor de Güigüe 13</i>	10.6.2
2684	1891	0-4-0T	60cm	<i>Tranvía a vapor de Güigüe 14</i>	10.6.2

Krupp

1189	1930	2-6-2T	Metre	<i>FC Santa Barbara á El Vigia 8 'SANTA BARBARA'</i>	10.3.2
1190	1930	2-6-2T	Metre	<i>FC Santa Barbara á El Vigia 9 '?'</i>	10.3.2

Lima

474	1894	2 truck Shay	75cm	El Callao gold mine 'COLOMBIA'	10.7.4
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Nasmyth Wilson

224	1882	0-6-4T	3' 0"	<i>FC La Guaira a Caracas 1</i>	10.4.1
225	1882	0-6-4T	3' 0"	<i>FC La Guaira a Caracas 2</i>	10.4.1
226	1882	0-6-4T	3' 0"	<i>FC La Guaira a Caracas 3</i>	10.4.1
227	1882	0-6-4T	3' 0"	<i>FC La Guaira a Caracas 4</i>	10.4.1
228	1882	0-6-4T	3' 0"	<i>FC La Guaira a Caracas 5</i>	10.4.1
229	1882	0-6-4T	3' 0"	<i>FC La Guaira a Caracas 6</i>	10.4.1
285	1884	0-6-4T	3' 0"	<i>FC La Guaira a Caracas 7</i>	10.4.1
286	1884	0-6-4T	3' 0"	<i>FC La Guaira a Caracas 8</i>	10.4.1
296	1885	2-6-2T	3' 0"	Caracas Antimano Railway,	10.4.6
			3' 6"	then regauged for <i>GFV 1 'CARACAS'</i>	10.2.1
297	1885	2-6-2T	3' 0"	Caracas Antimano Railway,	10.4.6
			3' 6"	then regauged for <i>GFV 2 'ANTIMANO'</i>	10.2.1
402	1890	0-6-2T	3' 0"	<i>FC La Guaira a Caracas 13</i>	10.4.1
403	1890	0-6-2T	3' 0"	<i>FC La Guaira a Caracas 14</i>	10.4.1
407	1891	0-6-2T	3' 0"	<i>FC La Guaira a Caracas 15</i>	10.4.1
408	1891	0-6-2T	3' 0"	<i>FC La Guaira a Caracas 16</i>	10.4.1
421	1891	0-6-2T	3' 0"	<i>FC La Guaira a Caracas 17</i>	10.4.1
422	1891	0-6-2T	3' 0"	<i>FC La Guaira a Caracas 18</i>	10.4.1

O&K

6834	1913	0-4-0T	60cm	American Carbonate Co. ?	10.7.11
13105	1938	0-6-0T	3' 0"	<i>FC de Carenero ?</i>	10.4.3

13213	1939	2-8-0	3' 0"	<i>Gran FC de la Ceiba ? ‘?’</i>	10.4.2
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Porter

771	1886	0-4-2T	75cm	<i>FC de Carenero 3 ‘ORITUCO’</i>	10.5.1
785	1886	0-4-2T	75cm	<i>FC de Carenero 4 ‘PANAQUIRE’</i>	10.5.1
1688	1896	0-4-2	3' 0"	<i>New York & Bermudez Co. ?</i>	10.7.2
4265	1909	0-4-0T	3' 0"	<i>New York & Bermudez Co. ?</i>	10.7.2
4361	1909	0-6-2T	3' 0"	<i>New York & Bermudez Co. ?</i>	10.7.2
4362	1909	0-6-2T	3' 0"	<i>New York & Bermudez Co. ?</i>	10.7.2
4949	1911	0-4-0	3' 0"	<i>New York & Bermudez Co. ?</i>	10.7.2
5057	1912	0-4-0	3' 0"	<i>New York & Bermudez Co. ?</i>	10.7.2
5526	1914	0-4-0T	75cm	<i>Tranvía de Bella Vista 7 ‘ZULIA’</i>	10.5.1
5527	1914	0-4-0T	75cm	<i>Tranvía de Bella Vista ? ‘?’</i>	10.5.1
5668	1915	0-4-4T	3' 0"	<i>Central Venezuela sugar mill ?</i>	10.7.10
5697	1915	0-4-0T geared	3' 0"	<i>Central Venezuela sugar mill 1</i>	10.7.10
5698	1915	0-4-0T geared	3' 0"	<i>Central Venezuela sugar mill 2</i>	10.7.10
5938	1917	0-4-4T	3' 0"	<i>Central Venezuela sugar mill 3</i>	10.7.10
6483	1920	0-4-4T	3' 0"	<i>Central Venezuela sugar mill ?</i>	10.7.10
7039	1938	0-4-0	3' 0"	<i>New York & Bermudez Co. 4</i>	10.7.2
7101	1938	0-6-0	3' 0"	<i>New York & Bermudez Co. ?</i>	10.7.2

Sentinel

9230	1935	4wVBT	3' 0"	<i>La Guaira port SP5L1</i>	10.7.1
?	1935	4wVBT	3' 0"	<i>La Guaira port SP5L2?</i>	10.7.1

Tubize

563	1883	0-6-0T	75cm?	<i>FC del Sur/del Valle (sub-contracted from Cockerill 1387) ? ‘?’</i>	10.6.1
564	1883	0-6-0T	75cm?	<i>FC del Sur/del Valle (sub-contracted from Cockerill 1388) ? ‘?’</i>	10.6.1
755	1889	0-6-0T	3' 0"	<i>FC de Carenero 1</i>	10.4.4
756	1889	0-6-0T	3' 0"	<i>FC de Carenero 2</i>	10.4.4
757	1889	0-6-0T	3' 0"	<i>FC de Carenero 3</i>	10.4.4
1576	1908	0-6-0T	3' 0"	<i>FC de Carenero 4</i>	10.4.4
1847	1921	0-6-0T	3' 0"	<i>FC de Carenero 5</i>	10.4.4
2247	1938	2-6-2T	3' 6"	<i>FC Central 1 or 10 ‘SANTA LUCIA’ or ‘LLANERA’</i>	10.2.2
2248	1938	2-6-2T	3' 6"	<i>FC Central 2 ‘ORINIQUEÑA’</i>	10.2.2
2249	1938	2-6-2T	3' 6"	<i>FC Central 3 ‘APUREÑA’</i>	10.2.2
2250	1938	2-6-2T	Metre	<i>FC de Santa Barbara a El Vigia 11? ‘MERIDA’</i>	10.3.2

Vulcan Iron Works

2342	1914	2-4-0	?	<i>Central Sucre? ?</i>	10.7.10
2561	1916	0-4-2T	60cm	<i>American Carbonate Co. ?</i>	10.7.11

Yorkshire Engine Co.

1096	1911	0-4-0ST	3' 6"	<i>FC Pto. Cabello a Valencia 11</i>	10.2.3
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ORENSTEIN & KOPPEL DE BERLIN

FABRICA DE FERROCARRILES
Portátiles y fijos de acero

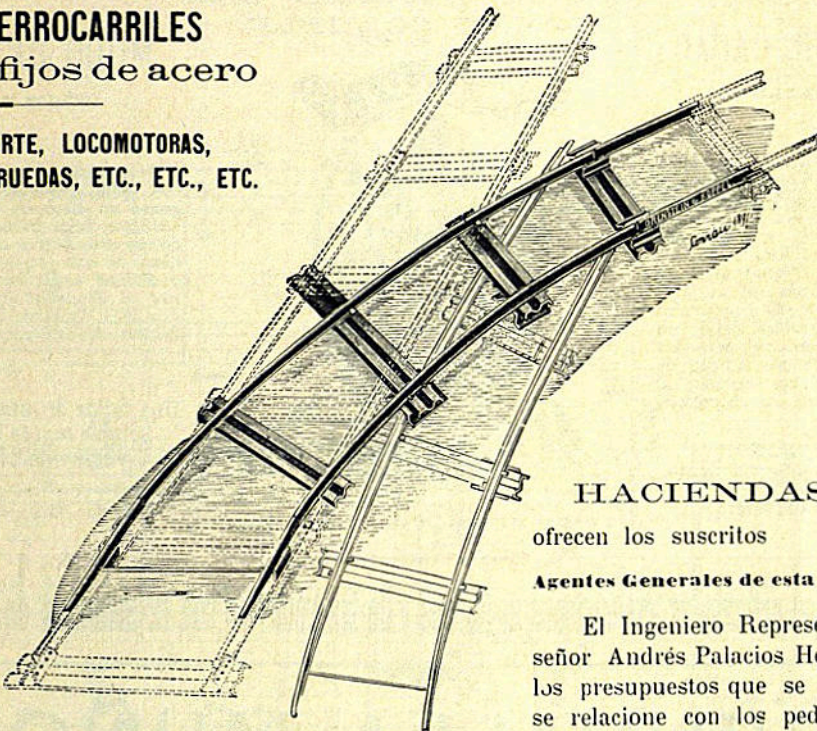
CARROS DE TRASPORTE, LOCOMOTORAS,
COCHES DE PASAJEROS, RUEDAS, ETC., ETC., ETC.



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das de caña, café, cacao
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bios de vías, wagones
para cargar caña y de-
más frutos, para ma-
deras, placas giratorias
etc., etc., etc., y cam-
bios montantes tan usa-
dos en la explotación de

HACIENDAS DE CAÑA

ofrecen los suscritos

Agentes Generales de esta fábrica para Venezuela

El Ingeniero Representante en esta ciudad,
señor Andrés Palacios Hernández se encarga de
los presupuestos que se soliciten y todo lo que
se relacione con los pedidos.

Caracas: Sur 1, Núm. 44

Traposos á Colón

Müller y Montemayor.

