Friends of the Choo-Tjoe

The Loop

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NEWSLETTER NUMBER 24 – JANUARY 2017

Editorial

First of all, Happy New Year to all our members.

In this issue we feature part two of the survey report of 1921. Kobus Volschenk has been most helpful in suppying additional information.

We also have an update of the work being done for Ceres Rail at Voorbaai.

Last year we paid our annual visit to the UK and Cyprus. While we were there, Flying Scotsman and the new build Tornado paid a visit to the Severn Valley Railway. The publicity build up had been going on for weeks as had the preparations to deal with the expected crowds. Even the farmers along the line got in on the act, letting people on to their land for a small fee, most of which went to charity. It is estimated that around 45,000 people took part over the four day event.

It is that time of year for membership renewals and a form is provided with this newsletter.

Julie Jenkins

Scotsman being turned on arrival

Tornado awaits departure time

Membership

A renewal form is attached for the year 2017. Would all members please complete this form and return it to the membership secretary, Dirk van der Zeyden together with proof of payment at mvdzeyden@gmail.com The cut off point will be 1st March.

Dirk van der Zeyden

George-Knysna line

Although things seem to be quiet at present, we are confident that progress is being made. For the latest information, visit the Classic Rail website. www.outeniquachootjoe.com If we hear anything, we will let you know.

Colin Jenkins

Survey report of 1921 Pt 2

Grades and Curves:- The ruling grades in both directions is 1 in 40 compensated at the rate of 0.04 per cent per degree of curvature. George is 733ft above Knysna, the total fall between these being 1414 ft. The sharpest curve is 5 chains radius. The curvature between George and Mileage 9 is heavy, totalling 3153 degrees and averaging 350 degrees per mile, 67 per cent, of which relates to curves sharper than 7 chains radius. Between M.9. and Knysna the curvature totals 4237 degrees, averaging 123 degrees per mile only 32 per cent of which relates to curves sharoer than 7 chains radius. Full particulars regarding rise and fall and curves are given in the estimate book accompanying this report.

Earthworks:- The earthworks are fairly light for the first few miles from George, but from M.5 to M.9 they are heavy and almost entirely in rock. I have thought it advisable to provide for a short tunnel at 7M.57 C., as although an open cutting would be cheaper the strata of the rock is dipping at such a sharp angle across the centre line that a cutting would probably prove to be unsafe. A tunnel is also necessary at 8 M.43 C. The earthworks in cuttings and borrows between George and M.9 average 42,610 cub.yds. per mile.

From mileage 9 to Knysna the whole of the work would be in drift sand with the exception of a few short pieces and at the bottom of the few deep cuts where soft rock would probably be encountered. I have divided the line into two portions for estimating the cost of earthwoks: the first calculated at 2s. 6d. per cub.yd. and the second at 1s. per cub.yd. the batters in cuttings of the latter being taken at 1 to 1.

Bridges and Culverts:- The bridges and culverts on the first eight miles of line do not present any difficulties as the areas drained are small and good rock foundations can in all cases be obtained in the beds of the streams. The Kaaimans River, however, presents a difficult problem and I propose to cross it by a concrete bridge of four 54 ft. arches, five 38 ft. arches and four 20 ft. arches supported on piers consisting of oval shaped reinforced concrete shells of caissons, sunk to rock by grabing the sand from within and afterwards filled with sand of concrete. The economic arrangement of spans cannot be determined until the actual depth of the rock has been ascertained. The centre line crosses the mouth of this river a little above low water mark where a bed of sea sand extends for a width of 340 ft. between the rocks on either side of the estuary.

In my preliminary examination, I was led to believe that the rock was only about 12 ft. below the surface of the sand as probing rods struck an apparently hard material at this depth. When I was able to obtain a more elaborate probing apparatus, however, this material proved to be a thin bed of shingle over lying soft sand, and I was able to drive a 20 ft. jointed ½ in. diameter rod through it to a depth of 19 ft. I endeavoured to sink a 3,1/2 in. diameter pipe in order to ascertain the depth of

solid rock, but this layer of shingle made it impossible to do so. Without an expensive boring apparatus it is not possible to determine the depth of solid rock and for estimating purposes I have taken it to be 60 ft. at the centre and rising to the points where it appears on either side.

As the stability of concrete piers up to 90 ft. high is indeterminate, I suggest that they be tied together at the tops by heavy longitudinal reinforced concrete beams (or steel ties embedded in concrete) forming a series of bow-string arches as shown on the plan. Owing to the fact that this bridge would be actually in among the breakers at high tide, a steel superstructure would be particularly undesirable at this point. I have estimated the quantities of this bridge separately at a special price.

The Touw River 11miles 40 chains, is crossed before it enters the lagoon and is subject to heavy floods which bring down large quantities of timber and I have provided a bridge of three deck spans of 60 ft. each on concrete piers. The Duive River (14 miles) and also the connecting channel between the Upper and Lower Lange Vleis (14 miles 17 chains), are crossed on a flat which becomes part of the Lange Vlei during floods, but as the rise of the water is not great timber bridges of 15 ft. spans on timber piles are provided for. The flow through these openings into the Lange Vlei is small, the rise of water being caused chiefly by the backing up of water of Touw River in flood.

Zwart Vlei:- The depth of water at the proposed crossing is a maximum of 8 ft. for a width of about 200 ft. and from one foot to a few inches for the remainder of the width at low tide when the mouth is open. The rise due to tide is about 2 ft. at this point. Occasionally the mouth is closed by drift sand and under these circumstances and after heavy rains the water of the Zwart Vlei has been known to rise about six feet. This causes a large area of farm lands to be flooded and farmers have entered into a contract with a man who has undertaken to keep the mouth open at all times for the sum of £20 per year.

In February, 1913, Mr Frank W. Waldron, Resident Engineer, Mossel Bay Harbour, inspected the Zwart Vlei mouth and reported on the possibility of works to train the flow of the water so that the mouth would remain open. He recommended the building of a rock groin and stated “I do not think that much could be done for less than £400 or £500.” The only time that any considerable flow of water would pass through the proposed bridge would be when the mouth was suddenly opened while the water in the lake was at high level. I do not think it would be difficult to ensure that the mouth would be always open and if this were done a shorter bridge than that which I have provided would be sufficient while the causeway approaching the bridge could be lowered.

Goukamma River Bridge:- The conditions here are similar to those at Touw River and I have propose for a bridge of two spans of 100 ft. each.

Knysna Harbour Bridge:- This river is not appreciably affected by floods at the proposed crossing. During the great flood a few years ago when the new reinforced concrete road bridge was washed away the water at a point about half a mile above this site only rose 15 in. above ordinary high spring tide level. Large quantities of timber are brought down by this river when in flood but most of the trees are stranded on the shallows of the lake and would not be a serious menace to a bridge at this point. The rise and fall of the tide at springs is 7 ft. The catchment area of the Knysna River is about 200 square miles.

The bridgework on this line is exceptionally heavy and if steel bridges had to be provided throughout the total cost would probably be prohibitive. I have therefore made careful enquiries with a view to the adoption of low timber bridges across the lakes and vleis where there is never a sudden rush of water bringing down trees and timber as there is at the rivers near where they discharge into the lakes.

When at Mossel Bay I noticed a number of 12 x 12 in. piles which had been cut off a little above low water and which appeared to be in good condition while others nearby were riddled by sea worm *(Teredo Novalis)*. I found that those in good condition were of creosoted yellow wood and had been there for at 29 years. They had been part of the old wooden jetty and had been cut off about

six years ago and although the teredo had got into the central untreated part of the timber, the outer two or three inches was entirely untouched in all cases while other piles of ironwood, jarrah and untreated yellow wood had been entirely destroyed within a few years of their having been driven.

The waters of the Knysna harbour and probably also those of Zwart Flei are infested with teredo and also with limnova, and although creosote will not preserve timber from the latter they work very slowly and for this reason do not, I understand, seriously reduce the life of the timber.

In the adoption of the low level timber bridges over the vleis and lagoons the interest on the saving of first cost as compared with the steel bridges of 30 ft. spans on cast iron screw piles would provide for the entire renewal of the timber bridges in a few years time. This period will, of course, depend upon the cost of available steelwork when construction is undertaken but it must be remembered that the cost of maintenance of steel structures in a moist climate near the sea will always be heavy.

Mr Frank W. Waldron, late Resident Engineer, Mossel Bay, who had considerable experience with piles in these waters expressed the opinion that creosoted yellow wood piles would last more than twenty years. I have devoted considerable space in this report to the subject of timber bridges as it appears to me of first importance as far as this line is concerned, and in view of Mr Waldron's opinion and the specimens of creosoted yellow wood piles above referred to, The proposed timber bridges may be considered to be permanent structures

.The following is a list of the proposed bridges:-

Kaaimans River .. 4/54 ft. arches, 5/38ft. and 4/20 ft. arches.

Touw River .. 3/60 ft. deck spans on concrete substructure.

Duive River .. 6/15 ft. timber spans on pile bents.

Lange Vlei .. 8/15 ft. timber spans on pile bents.

Zwart Vlei .. 40/15 ft. timber spans on pile bents.

Goukamma River .. 2/100 ft. deck spans on concrete substructure.

Knysna River .. 123/15 ft. timber spans on pile bents.

The areas drained bt culverts and pipes are small and the run off is very low as the vegetation is heavy and the soil sandy

Permanent Way:- Second-hand 60lb. rails and fastenings at L£700 a mile with 1,936 sleepers per mile at 10s.6d. each have been estimated for and I have allowed for railage charges for both from Mossel Bay. The question of shipping the rails, fastenings and steelwork required for say 30 miles of the line to the port of Knysna, using local sleepers and re-establishing a creosoting plant at Knysna should be considered. By laying 30 miles of the rails from Knysna end it would be possible to proceed with the construction of the bridges between M.12 and Knysna while the heavy earthworks and tunnels at the George end of the line were being carried out. This would result in both the cost and time required for construction being reduced below what would otherwise be necessary.

Ballast:- The curves and grades on the first 9 miles from George are severe and I have allowed for broken stone ballast on this section where stone is plentiful. The remainder of the line would be on easy curves and grades while the natural drainage is good and only sand ballast which is obtainable by the side of the track would be required.

Fencing:- No fencing except at sidings and cottages has been allowed for.

Stations and Quarters:- The estimate includes provision for one station building, one goods shed and one Station Master's house and four Platelayer's cottages with quarters for European labourers of the latest type. Should, however, the gangs be manned by natives, a saving of approximately

£10,000 would be reflected under “Quarters and Compounds” representing approximately £240 per mile.

Water Supply:- Water is scarce at Knysna but a good gravitation supply could be obtained from a spring about four miles away. A gravitation supply could be obtained from either the Touw or Duive Rivers.

Cost:- The total estimated cost of a line with 60lb. second-hand rails with new imported sleepers and providing for 20 sets of quarters for European labourers is £350.812 or £8.352 per mile.

H.G.DEMPSTER,
Resident Engineer

ORIGINAL ESTIMATE OF COST OF CONSTRUCTION
GEORGE - KNYSNA RAILWAY

Length of line ..	..	41.9 miles
Length of Sidings	..	2.1 miles
Total	..	44.0 miles

Second-hand rails 60lb. section, and new sleepers 1,936 per mile. Size 6 ft.6in. x 9in. x 4,1/2 in.

Guage 3 ft.6in. Sharpest curve 5 chain radius.

Ruling gradient 1 in 40 Up (compensated); 1 in 40 Down (compensated).

Estimated time required to complete work – 2 years.

SUMMARY

Direct Expediture.

1.Preliminary and Survey	4,578	109 0 0
2.Land	2,100	50 0 0
3.Earthworks	92,610	2205 0 0
4.Bridges, Culverts and Pipes	77,028	1834 0 0
5.Permanent Way	93,156	*2218 0 0
6.Fencing	-	-
7.Level Crossings	252	6 0 0
8.Signals and Signs	462	11 0 0
9.Telegraphs, Telephones and Block Instruments ..	4,200	100 0 0
10.Stations	7,140	170 0 0
11.Quarters and Compounds	17,598	+419 0 0
12.Locomotive Equipment	-	-
13.Water Supplies	1,200	30 0 0
	300,384	7152 0 0

Indirect Expenditure

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14.Supervision	15,019	357	11 11
15. Interest during Construction	15,770	375	9 6
16.Medical Attendance	840	20	0 0
17.Extraordinary Maintenance	2520	60	0 0
18.Working Public Traffic	1260	30	0 0
19.Suspence Account	-	-	
20.Contingencies	15,019	357	11 11
Total	£350,812	£8352	13 4

* 60lb. second-hand rails and new sleepers +Allows for 20 sets of quarters for European labourers.

Progress at Voorbaai

Bobby and his team have had a real challenge with 19D 3322. The tender was tackled first and it did not take too much effort to affect the repairs and produce a new oil filter system. (the loco will be oil fired) A new cab roof was also fabricated as the old one resembled a piece of lace. It was on the loco itself that the problems manifested themselves. The firebox needed 276 stays of various kinds replacing.

Tighteneing stay caps

Inside the firebox

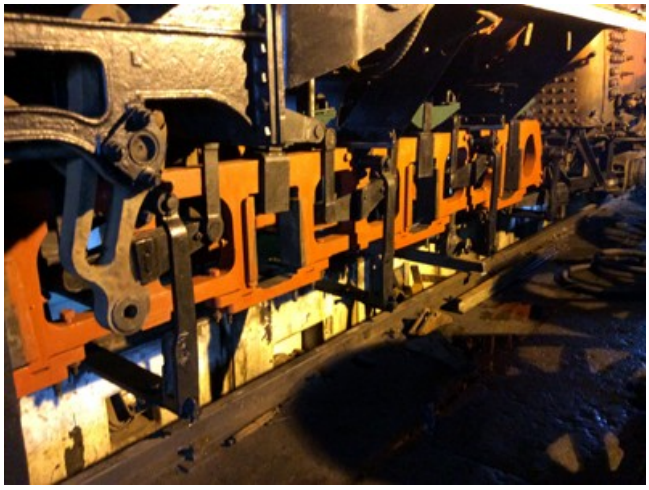
First, the old stays had to be removed and the holes prepared to receive the new ones. These had to be machined, no small task in itself taking up a lot of time. Along with these, new stay caps also had to be machined. Finally, it was time to fill the boiler and, as Bobby said, " there were 276 chances for something to go wrong" And they did. It took a lot of time and a great deal of sweat (it gets hot working in the firebox, even without a fire) to get the stays watertight. Then the loco was moved off the platform road and onto the pit road. The loco had suffered some damage to the axles after it had been towed on a Namibia trip. So the driving wheels had to come out for the axles and boxes to receive the necessary attention. Very shortly, the wheels and the frames will be reunited and the rods will go back up. Then the very tedious job of

fitting all the pipework will have to be undertaken. The team will then be able to take a day off!

Colin Jenkins

Rolling the journals

Wheelsets ready to be replaced in frames



Frames ready to receive wheelsets

Starting the reassembly

The old boxes

Machining the new boxes

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Letters

Dear Julie,

I came across 'The Loop' newsletter when I heard that Dovedale Games Train Simulator was bringing out the Knysna Choo Tjoe route. I was interested in reading Colin Jenkins's 'Memories of Yesterday'(newsletter 22) where he mentions the narrow gauge forest railway. I lived in Knysna (1946-53) when the railway was still operating and ran just below our house. My father(Rector of Knysna) somehow persuaded 'the powers that be' to attach a wagon to the front of the engine and take us up to Deepwall –an experience I'll never forget and where I probably got my lifelong interest in trains!.

I also used to travel weekly on the Knysna Choo Tjoe (before it became a tourist attraction)as I went to primary school in George (along with 2 or3 other boys and girls) and on Fridays we used to leave school early to catch the midday train to Knysna. Being unescorted we used to get up to no end of mischief! On Mondays one of the parents would then take us back to school by car. I can't imagine young children being allowed to travel alone these day!

When I went to St Andrews College in Grahamstown I would do the journey by train – Knysna to George to catch the midday Cape Town to PE train. The highlight was grinding up the Montagu Pass behind a Garrett (a sorely missed sight) and only arriving in Oudtshoorn towards evening (now it takes less than an hour by car!),then a few hours in PE before catching the train to Alicedale where I would change to the Grahamstown train, arriving at school late afternoon. When I went to Rhodes University we were living in Graaff Reinet so I had to do the more or less same journey home by train.

I do hope the Knysna Choo Tjoe journey is restored – it should never have been discontinued in the first place - as it surely qualifies as one of the most scenic routes in the world. I would also love to see the Garretts on the Montagu Pass again but sadly unlikely to happen.

Kind regards,

Brian Byrne

GMAM on the Cape Town –PE mail, Montague Pass 1978

Dear Sirs,

Some of you may be interested in viewing this print to order book.I am really sorry that is so expensive though at cost price from Blurb.

Great that things are now happening on the branch.

http://www.blurb.co.uk/b/7424798-south-african-steam-memories

Best wishes,

Tim Stephens

Dear Colin,

Thank you for this *(Loop 23 Ed)* which I would like to put up on the Fedrail site as members news. There is an error though in Sandy's story, the loco shown "as built" is not a Hunslet but was built by Baldwin and is a 4-6-2 wheel arrangement. It is also mistakenly referred to as a Class (NG) 10 but was built in 1930 to a similar design and is not an SAR NG10. The loco derailed off the end of the line is the same loco but was modified at EPC whereby the sand boxes were moved to the running plate from the top of the boiler. This is now at Brecon Mountain Railway where they rebuilt it to the original 1930's spec with sand domes on top of the boiler.

Kind Regards

Dave Richardson

Dear Dave / Colin

Dave's correction is absolutely spot on but isn't the full story – EPCC had three large steam locos, their No. 1 was an ex-SAR NG9 class 4-6-0 which was replaced by a large Hunslet 2-8-2 (HE 3670/1949) which became No. 3, The Baldwin was No. 2. However, what has caused confusion is that when the NG9 was scrapped, the Baldwin was renumbered No. 1 and the Hunslet became No. 2. The Hunslet was EPCC's last steam loco, lasting as far as I know, until about 1976.

Sandy also says in his story that he didn't know of any photographs of the EPCC branch. In March 1990, the Eastern Cape Steam Safari traversed the branch behind the restored NGG 11 and an NG15 and I attach two photos. At the cement works, we took the opportunity to photograph the NG15 on a string of limestone wagons !

Regards

John *(Middleton Ed)*

Fedrail

For those who are interested in the future of railway preservation in this country, I am attaching FEDRAIL's manifesto. It is an organization worthy of our support. The Friends are members but individual members are welcome._

Colin Jenkins

Dear Heritage enthusiast,

As someone interested in railway preservation I would like to tell you about a new organisation, the Federation of Heritage Railways of Southern Africa (FEDRAIL SA), recently founded in Southern Africa to promote and support railway preservation and rail tourism. The region has historically been a favoured destination for preservationists from around the world with steam traction and varied and magnificent scenery and destinations for rail tourism. In recent years, despite our favourable currency, this attraction has declined with limited offerings from local suppliers.

The South African Preservation sector has a less than perfect image and a current industry association with fairly narrow interests. From our experience industry associations need to be managed by elder statesmen who have an in-depth knowledge of how this sector works and who not only understand good corporate governance but believe emphatically in the importance of it.

FEDRAIL SA was created in order to fill this vacuum. We do not believe that FEDRAIL SA should be considered as a competitive force in the Railway Preservation and Tourism sector. It is an organisation which has a large membership, is well funded and it has a Board and a group of advisers who understand the issues involved.

The potential for expansion of FEDRAIL SA is considerable. It is already achieving strong international recognition from organisations such as FEDECRAIL (European Federation of Museum & Tourist Railways) and World Association of Tourist Trams and Trains (WATTRAIN). Influential international people have already joined FEDRAIL SA and include people like Sir William McAlpine, Chairman of the British Railway Heritage Trust (see: www.railwayheritagetrust.co.uk/), and Al Harper, the owner of a number of highly successful and arguably some of the best preserved railways in the world (see: www.durangotrain.com). Our membership increases on a day-by-day basis.

Recently we signed a Memorandum of Agreement with the Transnet Foundation giving us recognition by the national railway authority as a representative body of railway preservation and rail tourism industry in South Africa.

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We have also been appointed by the South African National Railway and Steam Museum (SANRASM) to manage the custodianship of their assets and allocate these to preservation projects throughout South Africa.

For 2017 we have also been instrumental, in partnership with one of our members, Sandstone Heritage Trust, to enable a number of rail enthusiast groups to visit South Africa. Many of these groups will be visiting many of the preservation operators where international visitors have been few and far between over the last decade or so.

There is no question that Railway Preservation and Railway Tourism is a potentially huge asset for South Africa in terms of its economy. It creates jobs, benefits previously disadvantaged communities in rural South Africa and just as importantly it attracts foreign tourists with their all-important foreign exchange.

At a recent review by the Board it was agreed that FEDRAIL SA should commit to the following list of priorities:

1) To lift South Africa's credibility in the eyes of the foreign Railway Preservation and tourist markets. The disappearance of the iconic and unique and irreplaceable Railways in South Africa that the country was famous for has left us with a tarnished image. However, on the plus side new initiatives are gaining momentum such as the Ceres Line, the expanding profile of the Sandstone Heritage Trust, the creation of a new National Preservation centre by Transnet in Bloemfontein, the ongoing work being done at the George Museum and many other fledgling developments. All of this needs to be coordinated and managed in a way that none of them act in a discordant way and then once things have settled down to market the country to the world. FEDRAIL SA has that capability.

2) To arbitrate. There will always be disputes and in fact there are a number on the table at the moment. FEDRAIL SA has offered its services free of charge to mediate in each case in order to bring about the best possible end result. This in some cases means working with organisations that have stepped out of line and to provide wise counsel the parties do act in a manner which might inadvertently set the movement back.

3) To manage projects. Discussions have been held regarding assisting with the management of assets such as the spare parts inventory of steam locomotive parts still left in the country. There are maintenance issues relating to the National Collection and other items in different parts of the country. The desire to draw a line in the sand and to preserve what is left in South Africa will not reach its full potential unless there is continuity regarding the security and upkeep of the items in question. FEDRAIL SA can provide that service and in so doing draws not only on the best local talent that is available but also on the services of international professionals but would make use of sophisticated IT management tools which it has at its disposal. South Africa still retains a lot of goodwill and FEDRAIL SA has had many offers of assistance from organisations that have not only faced but also overcome similar difficulties.

Cooperation is always the best way to develop an industry. Up to now the parties have been too far apart and there was perhaps a lack of mutual trust which inhibited cooperation. In addition this needs to be a democratic process where the very best people in this sector are involved. This is not an organisation that plans to provide a mini fiefdom for individuals who can exercise authority that they do not have.

Why join Fedrail?

1 Legally constituted NPC

2 Internationally recognised and affiliated

3 Large membership comprising local and international expertise

4 Focused on rail tourism and in particular heritage rail tourism

5 Experienced and qualified directors

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6 Non regulatory stance to members but with expertise and connections to regulatory bodies to enable a positive advisory service

7 International links will enable worldwide focus on Southern Africa

8 In twelve months of operation has been widely accepted as a required organisation in Southern Africa

9 Dedicated to expanding the rail tourism sector and the wellbeing of its members

10 An active web site and regular news briefs to disseminate the latest information to members

11 A dedicated strategy to include all members input on all matters

10 Inexpensive membership fees

Our Manifesto

To link and unify the Railway Preservation community in Southern Africa.To seek links with likeminded federations around the world to enhance and promote their achievements to the broader public and to provide a voice for Southern African organisations on the local and international stage.Railway Heritage is a substantial tourism magnet and The Federation of Heritage Railways of Southern Africa seeks to promote railway heritage and operating railways as an attractive tourist experience.

The Federation of Heritage Railways of Southern Africa's objective is to serve its members for the purpose of expanding the sector and enhancing the wellbeing of all operators, interest groups and railway associations.

The Federation of Heritage Railways of Southern Africa will also provide an advisory service to the state railway organisations, operators, interest groups and railway associations.

The Federation of Heritage Railways of Southern Africa will have a media strategy, publish articles and have coordinated gatherings where historical railway information is disseminated.

You may join FEDRAIL SA online by accessing our website, www.fedrail.co.za, and clicking on membership applications.

Join FEDRAIL SA now and have your say in the future of Railway Preservation and Tourism in Southern Africa.

Kind regards,

Dave Richardson

Director

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