

On Track

**RAILWAY SOCIETY OF
SOUTHERN AFRICA
REEF BRANCH NEWSLETTER
June 2013**

From the Editor

The picture on the right was sent out as a mini teaser to all people on my E-Mailing list, with the question what is this locomotive.

The loco is a class 10a II of the Benguela Railway, built by Beyer Peacock around 1929/1930.

I would like to thank Jean Dulez, Stan Brown, Mark Robinson, Sandy Buchanan, Richard Clatworthy and Nick Twynham for their prompt and correct replies.



Please will you diarise the 6th of July (a Saturday); our branch organiser is 90% confirmed that there will be a visit to the locomotive assembly plant of ARTS in Pretoria. More details will be available shortly but in the meantime please sent a message (SMS) to Tony Attwell at 083 629 8732 or mail him at tony@alacc.com of your intention to attend so he can advise numbers.

2013 Subs

It's that time of year again when we ask you to renew you membership subscriptions to the RSSA Reef Branch.

With SA Rail R465

Without SA Rail R165

Please pay our treasurer, Jean Dulez, directly at meetings, or mail a crossed cheque made out to: Railway Society of Southern Africa (*not* RSSA)

P O Box 75169

2047 Garden View

or

EFT

Railway Society of Southern Africa

Standard bank, branch code: (01) 6342 (00)

Account type: cheque; No: 02 012 326 4

Please, no cash bank deposits since these attract charges, but you are welcome to pay in cash at meetings directly. If you wish to make use of your credit card, please mail the details directly to RSSA in Durban, with your renewal form (remember that there is an extra service cost here).

Further, if you have paid into the Nedbank account in Durban directly via EFT, kindly also inform us so we can update our records.

Please list your name as reference for any payments/EFTs

Just remember that only paid up RSSA members will be able to attend the visit.



Premier Classe

Premier Classe now runs twice a week on a Friday and a Sunday from Johannesburg to Port Elizabeth as well as once a week from Johannesburg to Cape Town and once a month to Durban. This seems a bit of a strange schedule! How can PE support two trains a week and Durban only one per month? The logical progression is, reinstate the PE-CT leg and offer complete round

trips JHB PE CT and return to JHB. A week on a very nice train. *Ed*

The picture was when Premier Class meant Premier

The Premier Classe is a luxury train and a product of Mainline Passenger Services currently operating between Johannesburg and Cape Town, Johannesburg and Durban as well as Johannesburg and Port Elizabeth.

The history of the Premier Classe goes as far back as 2001, when the Premier Classe ran with only 4 coaches hooked onto the Trans Karoo tourist service between Pretoria and Cape Town. During that period, the Premier Classe could only accommodate 28 passengers.

Due to the change in travel patterns and accelerated demand from customers, a full Premier Classe train set was launched in May 2006 with 11 coaches, accommodating 84 passengers. This created excitement in the market and encouraged Mainline Passenger Services to strive for more as far as the Premier Classe and the rest of our product offerings are concerned.

To keep abreast with today's technology, a refurbished Premier Classe set was introduced in November 2007, with additional features such as air-conditioning, technological sophistication in its new dining and lounge cars, a conference coach, a car carrier for normal and 4X4 vehicles, to name but a few.

With the fast paced growth in the tourism sector in South Africa, the Premier Classe plays a role in the fundamental mindset shift with respect to local tourism. There is a drive to increase awareness and grow tourism within the country. We therefore need to position passenger transportation as core to the tourism value chain through improved rail transportation. We also believe the Premier Classe as a product and as a brand plays an important role in the Tourism industry and the broader Public Transport environment.

Tour Disaster

Rail tour operator steams over closed line

Geoff Cooke, Geoff's Trains Limited IF THIS ISN'T SORTED OUT, BOTH I AND TANAGO WILL NOT COME BACK TO SOUTH AFRICA.

WHILE South Africa is busy selling its wares at the Tourism Indaba, which ends today in Durban, 23 international tourists have had their holiday plans frustrated by Transnet's closure of the railway line from Creighton to Pietermaritzburg.

The International tourists then photographed steam trains operating on the old line at Ixopo

"It's a serious and devastating situation," said tour organiser Geoff Cooke of UK- based Geoff's

Trains Limited, who first learnt of the closure on Saturday.

"We received a quote from our operator here, we paid the operator, he paid Transnet and only when we landed on the ground here did we learn that the line was closed," he said.

Geoff's Trains is a British specialist tour operator offering heritage steam train tours in Britain and other parts of the world.

"This is high- value tourism," said Cooke. "People have paid a lot of money. "It is estimated that the tourists - who come from Germany, Britain, Canada, Australia and Japan - will have paid an average of £ 2 500 (about R32 000) each to come to South Africa, including their flights.

"I travelled all the way from Canada to experience riding a steam hauled train on a very scenic line in your beautiful country," said Canadian Rider Cheyne. "So I was very disappointed to find the train cancelled."

Cooke, who has been running tours here since 1986, said the situation was unprecedented.

"It's devastating for me, for the people here, and it's devastating for South African tourism."

The seven- day tour is being run in conjunction with Tanago, a German- based company specialising in rail tourism.

"This is very serious," said Peter- H. Patt, Tanago's director of destination management. "If it's not resolved satisfactorily, it could mean Geoff and I will not run tours in South Africa again."

According to local operator Julian Pereira, who runs Paton's Express Adventures in Ixopo, he requested a quotation from Transnet to run a train on the line in early March. "We got a quotation in April; we accepted it and paid the invoice on April 29."

Pereira paid the R111 893,60 invoiced and the bookings by the tourists were confirmed.

"We had to pay that amount to use the line from Creighton to

Pietermaritzburg with our own trains, our own coaches and our own staff." After paying the invoiced amount, he said, he received no further communication from Transnet.

Last Thursday, May 9, he contacted Transnet because he hadn't received certification to run a train. "I was told we could not run trains as the line had been closed." An e- mail from Transnet, dated May 7, was then forwarded to him confirming this.

"On the day we were supposed to travel to Pietermaritzburg, all we could do was run the train 200 metres up and down the line at Creighton."

Pereira said the reason given for the closure was that the line was unsafe. He said this was not the case.

However, Transnet disagrees. "The line has been closed since July last year," Transnet spokesperson Mike Asefovitz said.

"Pereira is well aware that there has to be a safety inspection before a line can be used. There is no way we can allow people to operate a tourist train on an unsafe section of our network. Imagine the public outcry if, God forbid, something happened on the trip."

Asefovitz said that after Pereira had asked for a quotation in March, the Transnet operations section checked the line and found it to be unsafe. He said Pereira was informed in writing by e- mail to this effect on Tuesday, May 7.

Asefovitz said the sleepers "were found wanting", adding that the line was not used and consequently not maintained.

He said Transnet apologises to the tourists for not being notified in time. "But here the possible consequences outweighed any other consideration."

According to Dudley Smith, economic development manager of Ingwe Municipality, headquartered in Creighton, no one had inspected the line.

It was "an absolute disaster" for the group of international tourists, said Smith.

He said the line's closure would also affect rail- based tourism in the area, including the Aloe Festival and the German mission station tours.

Ironically, Cooke was presented with a lifetime achievement award by the Heritage Railway Association of Southern Africa (HRASA) - "for his contribution and commitment to showcasing the heritage legacy of Southern Africa to international visitors through his photographic and

enthusiast tours" - at a function at Ixopo station on Saturday.
Comment was sought from Mike Mabuyakhulu, MEC for Economic Development and Tourism, but no response was received at the time of going to press.
Nerina Sky, chairperson of HRASA, yesterday made representations to Transnet and Tourism Minister Martinus van Schalkwyk to try to rectify the situation.
Meanwhile, Cooke is faced with an unenviable situation.
"We have managed to organise a day with Umgeni Steam Railway, but other than that I have nothing to offer my tour group.
"If this isn't sorted out, both I and Tanago will not come back to South Africa."
Natal Witness

Mainline Passenger Services

According to an announcement on 16 May by Prasa's Main-Line Passenger Services executive head Mphefo Ramutloa, local passenger service between Bloemfontein and Kimberley has been revived. He is quoted explaining in an official statement: "The resumption of this service was informed by our conscious awareness of the fact that our main objective as an organisation is to ensure that there is travel convenience for commuters. Since we resumed with this service, commuters have now been at ease when travelling between the two areas."

The train departs Kimberley three times a week at 5:00 am.

Rollo Dickinson

PRADSA



Latest Pale Blue PRASA Colour Scheme
Photo taken by Graham McWilliams south of Scansdam

Transnet Freight Rail

The South African coal line to Richards Bay would include a Botswana link in seven years' time, Transnet Freight Rail CEO **Siyabonga Gama** said on Wednesday.

Gama told the twelfth Coaltrans Southern Africa coal conference that the proposed border-straddling connection would form part of Transnet's investment in the upcoming Waterberg, the coalfield in South Africa's north-west, close to the Botswana border, which would be the source of significant future tonnages of coal for both domestic consumption and export.

"We'll link the Waterberg with Botswana by 2020," he said, adding that a rail line would then couple the developing Mmamabula coalfields, in Botswana, to Lephalale, in the heart of South Africa's Waterberg, and then pass through Thabazimbi on its way to the coal area of Oogies, in Mpumalanga, and then on to Richards Bay in KwaZulu-Natal.

The developments would be integrated through the Presidential Infrastructure Coordinating Commission and the strategic infrastructure programmes it oversees, which are designed to accelerate economic development and create jobs.

"Part of what we would want to do is to unlock the northern mineral belt, which is the Waterberg, and as we do that, we need to facilitate further participation in the coal mining sector by emerging miners, as well as a broad participation by black people," Gama explained.

Railing coal from Botswana via Durban had already begun on a moderate scale. "We've moved the first few trains from Botswana to BMA," he said, BMA being the JSE-listed Bidvest group's Bluff Mechanical Appliance, which handles two-million tons of exports a year.

South Africa's major coal-export outlet is the private-sector-owned Richards Bay Coal Terminal (RBCT), through which 68.3-million tons of coal was exported last year and which has a capacity of 91-million tons.

Transnet moves more than 95-million tons of coal a year and also serves other smaller export outlets, including Navitrade Dry Bulk Terminal, also in Richards Bay, and Matola, in Mozambique, and rails large volumes domestically for State power utility Eskom and other entities.

Gama said there had been a number of successes in the quest to increase the access of junior miners to markets.

He added that provided the various port capacities were correctly allocated, all producing coal miners would be able to export through existing channels.

Rail was seen as integral to the success of emerging juniors and Eskom's plan to source a billion tons of coal from emerging coal miners would be a game-changer.

Gama said that Transnet would be railing more than 32-million tons of coal for Eskom by 2019 and 60-million tons by 2030 as the Waterberg came into play.

Rail capacity on the Richards Bay line to the RBCT would be increased to 95-million tons by 2018 and investment in the Swazi rail link would take non coal freight off the coal line and thus open up more capacity for coal.

Mining Weekly

TFR Motive Power

Exactly how much more it costs to use diesel power than straight electric is not a finite figure because the extent of the difference varies according to several factors. The crunch comes with present-day realities: South African electrified main-lines are prone to Eskom supply hiccups as well as persisting incidents of cable theft.

It is understood that the regular motor car trains operated between the factories at Port Elizabeth and Kaalfontein in Gauteng are to go over to diesel power throughout. Apparently it is the intention to schedule the same class 34 locos for the entire journey, though there will be crew changes en route.

This will be more efficient than the present arrangement which sees 25kV AC traction to Noupoort, then diesel to Bloemfontein and finally 3kV DC power from there. This sequence

necessitates two unavoidable loco changes. It seems likely that the through container trains may be dealt with similarly.

Elsewhere, notably on the KwaZulu-Natal South Coast and on the OFS branch to Welkom, electric haulage has already been abandoned and the wires have come down – or are to do so soon.

Is this the reason for refurbished and repainted 34 Class diesels as per last month's On Track.

The adjudication process for two large tenders issued by Transnet Freight Rail (TFR) for the procurement of 599 dual-voltage electric locomotives and 465 diesel locomotives for its general freight business is under way and the preferred bidders should be named during the second half of this calendar year.

TFR CEO **Siyabonga Gama** told *Engineering News Online* that the bids were submitted on April 28, but that the identities of the bidders would not be released until the tender was awarded. Initially, the tenders were due to close on October 1, 2012, but had been delayed in order to secure sanction from the National Treasury on the final adjudication criteria.

It had been agreed that the adjudication would be conducted using a 60:20:20 formula, with price accounting for 60%, black economic empowerment (BEE) 20% and local content 20%.

The formula deviated from the prevailing Preferential Procurement Policy Framework Act (PPPFA) ratio stipulating a 90% weighting for price and 10% for empowerment.

Gama confirmed reports carried in the *Business Day* suggesting that the National Treasury had approved the formula slightly ahead of the closing date.

The National Treasury had granted a similar dispensation for the Renewable Energy Independent Power Producer Procurement Programme, where a price weighting of 70% was stipulated, with economic development, including local content, and BEE comprising the 30% balance.

Gama insisted that the comprehensive nature of TFR's tender meant that the final evaluation criteria "did not make a major difference" to the bidders.

He also confirmed that TFR was aiming to achieve minimum local content of 60% and that the BEE component needed to be built into the overall offer.

The National Treasury had scrutinised the adjudication formula mainly over concerns that it could raise the costs of the programme.

Pay Deal

State-owned Transnet has reached a two-year wage agreement with unions, which will see employees in the bargaining unit receive an 8.5% across-the-board increase for the current financial year and a 9% increase for the following year.

The salary increases would be backdated to April 1.

Transnet indicated that it had concluded the agreement with the South African Transport and Allied Workers Union and the United Transport and Allied Trade Union-South African Railways and Harbours Union at the Transnet Bargaining Council on May 10.

"We would like to thank all our colleagues and members of our recognised trade unions for the leadership they have shown and their hard work in ensuring that we have reached this historic settlement in a mutually respectful manner," the group said in a statement on Wednesday. Transnet added that the settlement would enable the group to focus on achieving its operational goals for the year.

Engineering News

Coal Line

State-owned rail utility Transnet Freight Rail (TFR) on Monday said it would shut its coal-export line for 12 days, from May 14 to 25, to catch up on its maintenance backlog.

The South African rail operator said in a statement that the lower activity in May presented an opportunity to replace old and problematic infrastructure, while also accelerating the bigger capital expansion/upgrade projects in line with the expected volume growth, as required by its market demand strategy.

Transnet stated that there were some sections on the coal line where infrastructure work could not be carried out without stopping the entire train service. This was the case at Overvaal, the single-line portion of the line where critical maintenance and refurbishment work was required. Further, the shutdown was expected to serve as a boost to TFR's infrastructure construction programme, which recently got under way and would see its rail capacity expanded to 81-million tons a year.

In the 2012/13 financial year, TFR railed a record 69.2-million tons of export coal on the line.

Mining Weekly

Manganese

A R2.3-billion project to upgrade the railways network from the manganese-rich Northern Cape province to the Port of Ngqura, in the Eastern Cape, has been approved, Transnet Freight Rail (TFR) CEO **Siyabonga Gama** revealed on Tuesday.

Speaking at a business briefing organised by the Johannesburg Chamber of Commerce and Industry, Gama said the investment was the first phase of a larger R27-billion railways and harbour investment programme aimed at eventually raising South Africa's yearly manganese export capacity to 21-million tons.

The first-phase target, though, was to increase the yearly export capacity from around 5.5-million tons to 12-million tons by mid-2017, which would involve port and rail investments of around R15-billion.

In total, TFR would invest R10.8-billion between 2012/13 and 2018/19 on rolling stock and infrastructure to support the manganese-corridor project, which would become its third heavy-haul export channel after coal and iron-ore.

The manganese-related investment itself was also but one component of a larger R201-billion TFR capital expenditure programme, representing two-thirds of the Transnet group's R300-billion Market Demand Strategy to modernise and expand its rail, ports and pipelines businesses.

The manganese-related investment would be used to upgrade the rail network from Hotazel, in the Northern Cape, to Coega to enable it to support axle loads of 26 t – the route would pass through Postmasburg, Kimberley, De Aar and Cradock on the way to South Africa's newest deep-water harbour.

In parallel, portside investments would be made to facilitate the relocation of the existing Port Elizabeth manganese terminal to an enlarged and scalable facility at the Coega Industrial Development Zone (IDZ), which is situated alongside the Port of Ngqura. There were also private-sector-led plans for a new manganese smelter to be established in the IDZ.

The option to export manganese out of Ngqura was selected ahead of an alternative proposal to use the existing iron-ore channel from the Northern Cape mines to Saldanha Bay, on the West Coast.

The Northern Cape is the epicentre of South Africa's manganese mining activities, with both large and small mining entities either operating or building mines in the territory. These included BHP Billiton and Anglo American, through Samancor, African Rainbow Minerals and Assore, through Assmang, as well as emerging miners Kalagadi Manganese, Tshipi é Ntle, United Manganese of the Kalahari and Kudumane.

About 80% of the world's known manganese resources, used to improve rust and corrosion properties of steel, are located in South Africa.

The first phase of the railways infrastructure upgrade would involve the doubling of certain sections and the introduction of new passing loops to accommodate 200-wagon trains, operated using dual-voltage locomotives.

A new export terminal would be developed at Ngqura in parallel, with the integrated system scheduled for completion by mid-2017.

"This is a new heavy-haul line that we are bringing to bear," Gama enthused, adding that the project would require close collaboration with miners, as well as internally, between TFR and Transnet's National Port Authority.

He also saw potential for private sector investment in common-user rail-loading facilities.

Edited by: Creamer Media Reporter

Brakpan Crash

Four operators have been injured in the collision.

One person is in a critical condition.

Ekurhuleni Emergency Services spokesperson William Ntladi said all the injured people were taken to hospital.

"They have been transported to Glynwood Hospital by ambulance. For now, the train line operating between Brakpan and Springs is the only one that's operational."

It is still not clear what caused the collision. *(maybe one was moving and the other not)*

Police are investigating the incident.



J & J (if you think railways were bad then!)

I have just heard from my Transnet connections that the two yearly refresher course "opknapping" the drivers attend at the college has been abolished! According to Transnet they can't afford to have drivers at college for 5 weeks, this in "un-productive" they will now have yearly "2 day checks". The problem we see with this is that the people that will be doing the checking were the ones that could not pass the tests in the college in the first place!!

Strangely the shunters and TCO's still go for their refreshers...

This is a disaster – more accidents are going to happen...

I have also been told that as of Monday the 2x car trains from Kaalfontein to PE and return will be diesel hauled 34 class all the way. These will be Transvaal drivers that will book off in Bloemfontein. From Bloemfontein new drivers will take the train further, still don't know how far.

This will also happen to the container trains too, although not sure if they will be diesel hauled. This means Kroonstad depot loses 3x trains a day.

Don't know where all this is heading??

It seems that all the Kroonstad diesel drivers that are dismissed are joining RRL here in Welkom, several of them are here now.

We have also been told that Sheltam will only be supplying locomotives to Mozambique from now on, they don't need their drivers anymore. "We can manage the trains on our own now."

Ridiculous greetings.

J & J.

Around and About



These pics were taken today (07 May 2013) from the R23 overbridge just outside Balfour. Looks as if the gradients on the line are being eased and there are thousands of concrete sleepers along the formation closer to the power station. Cannot see what the progress where the line is away from the roads

John Parker

Here is an "Update on Trichardt".

Saw the first of the Class 43's at Trichardt on Monday 6 May. No's 093 + 098 I think. Also noted was a line of 6 x Class 37's, looking very battered. Looks like the result of a coal train derailment. (see photo)

Also noted was a Sheltam C 30 No. 3017 working with the Sasol 34's. Usually it worked "top & tail" on long tanker trains, but on one occasion was noted double-heading with one of the Sasol locos on a long container train.

One of the resident Class 36 locos appeared to suffer a blown turbocharger, belching huge quantities of smoke, and hardly able to move itself, never mind a train. It was also consigned to the line that the 37's were on. After this, any locos that bought a train in, were taken over for heavy shunting, (i.e. the 34's on the tanker trains) until a replacement 36 arrived. The single 36 coping with lighter shunting.

John McClement



Exactly how much more it costs to use diesel power than straight electric is not a finite figure because the extent of the difference varies according to several factors. The crunch comes with present-day realities: South African electrified main-lines are prone to Eskom supply hiccups as well as persisting incidents of cable theft.

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Mozambique

MOATIZE – Brazil's Vale has cut the 2013 export target for its Mozambique coal mine by nearly a third, a company official said on Friday, after heavy floods temporarily shut a railway line.

Vale now sees exports at 3.4-million tonnes, down from its previous estimate of 4.9-million tonnes, Altiberto Brandao, Vale Mozambique's director of coal operations, told reporters on a visit to the Mortise mine in north-central Tete province.

The Sena railway line that connects coal-rich Tete to the coast was shut for two weeks in February forcing Vale to declare force majeure on a number of coal shipment contracts.

"The line was completely paralysed," Brandao said.

The shutdown was a further blow to Vale, which is already battling infrastructure bottlenecks in the former Portuguese colony, home to vast reserves of steel-making coking coal.

It began exporting coal from Moatize in 2011, but was forced to almost half its production and export targets last year due to infrastructure constraints.

Brandao also said coal production from Moatize is forecast at 6.4-million tonnes next year, rising to 9.2-million a year after.

Vale is investing to expand the mine's annual capacity to 11-million tonnes and plans to double that by 2018, Brandao said.

The expansion to 22-million tonnes is contingent on Vale's \$4.4-billion rehabilitation of the northern Nacala corridor, which includes repairs to a railway line through Malawi to the Nacala deep-water port.

Edited by: Reuters

Botswana

Press reports on a strategic consultative meeting with stakeholders in the logistics and transport sector held on 23 May suggest that the construction of a new railway from Botswana to Walvis Bay has been agreed by Namibia "in principle". In his keynote address, minister of trade and industry Calle Schlettwein explained that his ministry has embarked on a consultative process though it is not intended to duplicate the National Logistics Master Plan being developed by Namibia's National Planning Commission. He was quoted saying: "Our intention is complementary [to the Plan] and mainly focuses on optimising the critical link between logistics and our desire to develop and boost local manufacturing and supply-side capacity, trade and investment." At the meeting, discussions centred around the current structure, performance and capacity of the logistics and transport sector, challenges and constraints faced, and opportunities that exist for expansion. Specifically, the meeting looked at the possibilities and implications of transforming Walvis Bay (and thereby Namibia) into a regional and global logistics hub.

Attendees at the meeting included the Walvis Bay Corridor Group, the Namibia Logistics Association and the Walvis Bay Port Users Association, together with a number of companies involved in transport and related activities. Namibia Logistics Association chairman Willie du Toit emphasised the challenges created by "the rapid deterioration of the country's rail and road infrastructure". Both require "massive volumes to make the infrastructure investment a viable economic option."

With reference to the envisaged new Trans-Kalahari railway, which has been under discussion for many years, it was accepted that "massive" traffic volumes would be needed to justify the investment. Botswana's Morupule coal deposit is said to be one of the biggest in the world, with capacity to export about 100 million tonnes per annum. No concrete figures were presented but "one of the prerequisites" is said to be the development of a port north of Walvis Bay, hopefully by 2016. The Namibia Ports Authority (NPA) would need to invest some N\$20 billion in a facility able to handle bulk volumes such as coal exports from Botswana.

Railways Africa

Your editor can't see this being a goer.

Zimbabwe

Just a quick note to let you know that the tour has arrived at Victoria Falls with 395. Both 395 and 613 have preformed well and the NRZ have cooperated to make the tour a success. (A stark

difference to the service received by Transnet in Natal). More details as soon as I get home to a faster internet server.

Tomorrow we put the 15A on the VF bridge twice, and then use the VF based 14A in the afternoon.

I rode the new VFSE tram to the bridge a few days ago, an interesting trip that includes an introduction to building the bridge.

Will keep a lookout for those Congo locos.

Geoff Cooke

In Victoria Falls 2013-05-22

Kenya

East Africa Diesel Locomotives

English Electric Twelve Cylinder model series, on the East African Railways 90 (later 87) Class.

The English Electric (EE) 12-cylinder models present an interesting case study, in particular because from 1959, there was a sequence of Australian models as well as those from the UK parent company. The respective development pathways, whilst not completely independent, were somewhat different.

The "twelve" was actually the last of the original EE RK/V engine variants to be built for a production order. The 4-, 6-, 8- and 16-cylinder models had all been produced in Mark I form for a variety of locomotive and railcar applications. There were no railway applications for the 12SVT Mark I engine, but it was the first Mark II model to be series-built, in 1953. It was also the first to be built in charge air-cooled form, as the 12CSV, in 1960. At the tail end of EE locomotive production in Australia were built a small number powered by the 12CSV Mk III engine. However Australian production had used a modified version of the Mark II engine since 1964.

EE generally designed locomotives to meet individual railway requirements, using standard components. Nevertheless, established designs were often adapted for other customers, and this is apparent in the 12-cylinder sequence, which accordingly could be described as being a series of quasi-standard locomotives. A greater degree of standardization is apparent in EE's sequence of 6-cylinder models, though.

The list of EE 12-cylinder models, in chronological order of first appearance, is:

1. Queensland Railways (QR) 1200 class, 10 built.
2. New Zealand Railways (NZR) Df class, 10 built
3. Malayan Railways (KTM) 20 class, 26 built
4. QR 1250 class, the first EE Australia variant, 17 built
5. Sudan Railways 1000 class, 65 built
6. East African Railways 90 (later 87) class, 44 built
7. British Railways (BR) 37 class, 309 built
8. Western Australian Government Railways (WAGR) C class, 3 built
9. Rhodesian Railways DE3 class, 16 built
10. QR 1270 class, 30 built
11. WAGR K class, also Goldsworthy Mining A class, 17 built
12. QR 1300 class, 45 built
13. WAGR R and RA classes, 18 built
14. AIS D34 class, 1 built

- 15. Ghana Railways & Harbours 1851 class, 16 built
- 16. Tasmanian Government Railways (TGR) Z class, 4 built
- 17. QE 2350 class, 16 built
- 18. TGR ZA class, 6 built

By my calculations, the total number of EE 12-cylinder locomotives built was thus 653, of which 496 were of UK origin, and 157 came from Australia.

This total comfortably exceeds the production of locomotives powered by other RK/V engine variants, again by my calculations as follows:

- 4SRKT 109 (locomotives only; railcars excluded)
- 6SRKT 249 (excludes the 6KT engine)
- 8SRKT & 8SVT 408 (59 8SRKT & 349 8SVT)
- 16SVT 277

Additional statistics about the EE 12-cylinder locomotives are that 309 were for use in the UK, EE's home country, and 344 for "export" markets (relative to the UK.) 327 were standard gauge, 256 were Cape gauge and 70 were metre gauge; there being no broad gauge examples. As built, 190 were equipped for hauling air-braked trains and 445 for hauling vacuum-braked trains, whilst 18 were dual-braked. Many received subsequent braking system modifications, though. The high number originally equipped to haul vacuum-braked trains is, perhaps, a reflection of the British-influenced markets in which EE traded.

All had six traction motors, and the majority, 583, were of the Co-Co wheel arrangement. 60 were



of the 1-Co-Co-1 type, and 10 were 2-Co-Co-2. 96 had 12SVT Mk II engines, 535 had 12CSVt Mk II engines and 22 had the 12CSVt Mk III type. As far as I know, 115 of the 12-cylinder Mk II engines were of the Australian special variant, 30 12SVT and 85 12CSVt. 20 locomotives had 10-notch electromagnetic control systems, the balance (this needs to be confirmed) had electro pneumatic control systems with continuously variable pneumatic throttles, which

was the EE standard fitment from the mid-1950s, and which formed the basis for the BR 'blue star' MU coupling class, although the latter also made provision for (optional) electrically controlled starting notches, not used by EE. 202 of the locomotives were fitted with dynamic braking equipment. All but 10 were fitted for multiple unit operation as built.

BR, with 309 of its 37 class, was the biggest user of EE 12-cylinder models. Next came QR, with a total of 118 spread over 5 basic models, although there were sub variants. QR was also the first operator to buy 12-cylinder EE locomotives, so a more detailed study of the group logically starts with the QR 1200 class, which then conveniently links to both the later UK and the

Australian models. At least basic information on most classes is reasonably available, and of course the BR 37 has been the subject of many treatments in the literature.

The EARH 90 class was the second English Electric 12CSVT-engined model to be delivered, but the first to be ordered. The initial order, for 8 units was announced in October 1958, and an increase to 10 units was announced in March 1959. This was EARH's first order for line-service diesel locomotives. A 13.5 ton maximum axle loading was imposed, to enable the locomotives to work northwest of Nairobi to Nakuru and Kampala, as well as between Mombasa and Nairobi, which section alone would have allowed a higher axle loading. This axle loading constraint required a multi axle design, as it is unlikely that EE could have built a compliant 12-cylinder Co-Co model. Unsurprisingly, EE used a 1-Co-Co-1 wheel arrangement. The resulting locomotive was largely a new design, although it included features drawn from the QR 1250 class (body style and general layout) and the Rhodesian Railways (RR) 16-cylinder DE2 class (running gear and in-frame fuel tank). What it was not, though, was simply a 1-Co-Co-1 variant of the QR 1250 with 12CSVT in place of 12SVT engine.

Nevertheless, the QR 1250 makes a useful yardstick for comparison purposes. The EARH 90, at 51'0" over headstocks, was a little longer than the QR 1250, at 49'6". This extra length was most likely required to accommodate the more complex running gear, although it probably also gave a bit more space to accommodate the dynamic braking unit and a higher capacity cooling group. The total wheelbase was 41'6", as compared with 40'0" for the QR 1250. The equipment layout for the most part followed established EE practice. The nose compartment housed the leading bogie traction motor blower, which was motor-driven. The T-shaped main equipment cubicle was immediately behind the cab; then came the dynamic braking unit, which was mounted high – just below the cantrail - with a crosswise orientation, fanshaft horizontal. Then came the generators, the engine, followed by the radiator compartment with mechanically-driven vertical-shaft fan, and finally the rear-compartment, housing the air compressor, mechanically-driven from the radiator fan gearbox, and the trailing bogie traction motor blower.

To Be Continued

Steve Palmano

Odds and ends

Soul of A Railway, System 7, Part 9, section 2, Wattles to Union Junction

Has now been added to this most informative and historic web site

A look at it is a must. : <https://sites.google.com/site/soulorailway/home/system-7-1>

Cocopan

From our San Francisco correspondent:

"I discovered recently that the word cocopan is unknown in America, so I looked up the derivation, thinking it might have a British (coke) or French (coco) origin. To my surprise, the word is a South African creation whose origin is the Zulu word ngkubana, meaning a short truck. Evidently the expression was first used by Zulu mine-workers on the Reef, and then found its way into Fanagalo, and from there into SA English. There doesn't seem to be an American word for a cocopan: perhaps it would be a small hopper. Coincidentally, there is a real-estate agent in San Jose (75km south of San Francisco) whose name is Coco Tan: we see her name on house sale signs".

Railways Africa

Books

David Wardale's classic and informative book *The Red Devil and other tales from the age of steam* is back in print. Only a very limited amount of copies ever made it to South Africa. Unfortunately the new reprint is only available in England and the publishers will not take orders for postage to South Africa because of the risk of theft. According to Luca Lategan, who is now with Atlantic Rail, "I have managed to work out a deal with Chris Newman from the 5AT trust to have 20 books sent to South Africa from where I will redistribute them. If you order this book through the 5AT website then you will pay more than R1,000 and have to take the risk of the item not arriving in the post. I will import 20 books and post them to your address for R750, all inclusive and with much less risk. I know that R750 sounds like a huge amount for a single book, but this one is really a gem. More information on the book is available at:

<http://5at.co.uk/index.php/references/printed-reference-material/red-devil-book.html>

Letters

Hi Stewart and John, the article about the Mallets refers, which got my old brain cells thinking that I had in fact seen another mallet tender somewhere, having checked my notes it was at REGM on my first visit to REGM on 14th April 1979, I noted three 15BR's and the Class 1, and made a note of the tender numbers which are most interesting:

R1 was no 1628

R2 was 1973

R3 was 1983.

R1's tender is the most interesting being from the only MG mallet built in 1911 and fitted with a street type mechanical stoker which was useless, according to Holland's book.

REGM tended to keep the loco tenders to each loco and did not change them around, so maybe R7 ex R1 which is preserved at SANRASM could have the tender from the MG mallet and therefore is the last surviving part of a mallet in South Africa ??

Thought this may be of interest.

Kindest regards

Nick Twynham

RSSA Reef Branch

Last month's meeting was a projector show firstly John Parker's home movie of Welsh trains then Jean Dulez had a movie of the recent Sandstone extravaganza (*Stars of Sandstone*) as well as steam tours in the 1990s and the finally was a Union Pacific promotional movie of the Big Boy locomotives.

All in all a great evening and well supported.

Next month's meeting will be the AGM to be followed by some form of entertainment depending on how long the AGM takes.

Teaser

I have a magnificent response to last month's teaser from Dennis Edgar. Nick Twynham, Mark Robinson, John Parker, Dave Richardson, John Wepener and Richard Roberts. Here is a selection of the answers

Unless my eyes deceive me I think that is EAR Class 90 No.9005, later re-classified and re-numbered as Class 87 number 8705.

Built in the early 1960's as one of the first batch of what eventual became a class of 44 locomotives that were shipped in to Kilindini Harbour, Mombasa in their complete form (other than the separately stowed bogies) from UK manufacturers English Electric these units served as the

effective prototype for the British Railways Class 37 produced by the same company without resort to a prototype of its own.

The 90 class EAR diesels were from English Electric but, for some unknown reason they were renumbered as the 87 class. When the MLW 92 diesels arrived about 1973, they proved to be fragile and they had been put aside waiting for the Canadians to sort them out whilst the 87's carried on in 1979?

I think this is an English Electric East African Railways 90 class which became 87 class when EAR was dismantled. They were built in 4 batches in 1960, 1964, 1967 & 1968. The first batch was built at RS&H Darlington and the other three at Vulcan Foundry by EE. They were numbered 9001-9010, 9011-9024, 9025-9036 and 9035-9044. They were of 1-Co-Co-1 wheel arrangement with an EE 12CSVT 12 cylinder engine, the same as a UK Class 37.

Well done Guys

Here is this month's teaser a picture from the 1920s or 30s of which S African locomotive shed and what locomotive classes can you identify?



Picture Courtesy of Pierre de Wet

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