

## Preservation February 2012 by Keith Robertson

**The Site** : The site was recently tidied up and looks good. as soon as our technician gets back from honeymoon.

**PUG** : Work will commence soon on this loco

**Coach 290** : This coach needs two windows to

be repaired and some cracks in the roof to be fixed.

**Coach**

**1825** : Work needs to done on the far side of the roof before the torch on can be applied.

**6J 641** : Cosmetic continues on this loco. New windows frames have been made. Also rust proofing is being done.

**OZ Wagon** : This wagon still needs about 7 panels

to be replaced and more painting to be done before we can start to painting the interior.

**Coach**

**1555** : This caboose needs some cracks in the roof to be repaired before winter starts. Still no decisions made regarding these locos. Class has had 6 tubes replaced and will run again on February 15.



**THF Locos** :

**News In** : 24

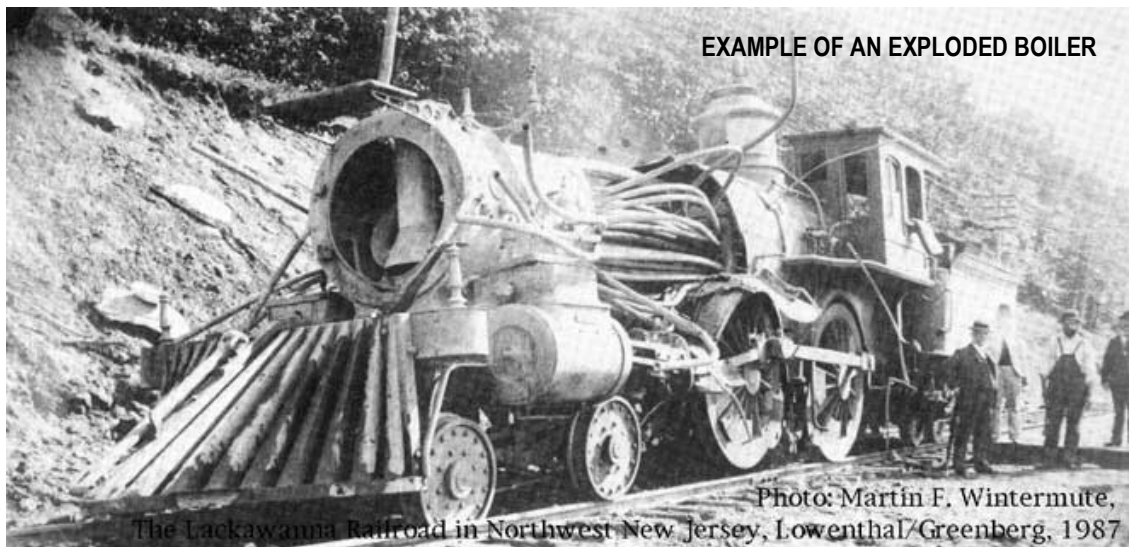
## Malcolm's' this And That

There is a divergence of views on many issues in the railway fraternity, but we all share one thing in common for sure, the love of steam!

It has that mysterious quality which is difficult to put into words. How do you describe it? I think the best remark cam from an awes ruck bystander on seeing an engine in full steam, :Big and black and beautiful!"

What do we tend to overlook is the lethal power of a steam locomotive. I read the other day about a

boiler explosion in the early days before the Mandatory Certification of boilers : The train (in England) had left Rugby and was just approaching Easenhill Bridge when the boiler barrel failed and there was a terrible explosion. It is doubtful whether



EXAMPLE OF AN EXPLODED BOILER

Photo: Martin F. Wintermute, The Lackawanna Railroad in Northwest New Jersey, Lowenthal/Greenberg, 1987

**NEXT BRANCH MEETING : TUESDAY 6 MARCH 2012**

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any locomotive in history has ever disintegrated quite so quickly into so many small pieces. Part of the boiler hit the parapet on the bridge and fell back upon the tender; one of the driving wheels blew off and also crashed into to bridge; the crank axle broke; part of the frame and motion was flung on to the up line while fragments of tubes, boiler lagging and sheeting, feed pipes and handrails littered both sides of the Easenhill cutting for a considerable distance.

The unlucky fireman was killed, while the driver was blown off the footplate onto the side of the cutting but miraculously survived. In the coach next to the engine only a postal sorter and the leading Guard were slightly injured. Three years before the engine had been re-tubed but no one had noticed the corrosion on the boiler.

There you have it. We should now add to the description; "Big and black and beautiful and dangerous!"  
Treat with great respect!

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**Cable Theft Exact A Heavy Toll : Call For Concerted Action As Scourge Affects Every Sector Of The Economy** : Every month South Africa loses about R16-million to R20-million in copper theft, spurred by demand for the metal from India, China, Japan and South Korea.

But the copper theft barometer compiled by the South African Chamber of Commerce and Industry (Sacci) tells only half the story. Power outages, equipment failure and dysfunctional water systems are just a few consequences of copper theft.

Although this cannot be quantified, export consignments have not reached ports in time because of cable theft preventing freight trains from running. "Manufacturing processes are being interrupted as a result of power outages. This could have a negative impact on the reputation of South Africa as a reliable trading partner and the loss of repeat orders for the exporters," said Peggy Drodskie, adviser to the CEO at Sacci.

Drodskie said future losses will depend on the success of the implementation of sections of the Second-Hand Goods Act, the initiatives of the South African Police Service, convictions of parties found guilty of cable theft and on the number of whistleblowers reporting theft.

Evert Swanepoel, centre manager at the Copper Development Association Africa, said the association, with the other role players, was continuously seeking ways to regulate the industry. "The problem can only be solved if the major stakeholders debate and share ideas and experiences and to this end the Institute for International Research will be hosting a four-day seminar in April in an attempt to establish an action plan which would hopefully be implemented down the line," Swanepoel said.

While the scourge has hit mines the hardest, Eskom, Telkom, Transnet, the Passenger Rail Agency of South Africa and local authorities have also suffered heavy losses. There are also knock-on losses for other businesses as a result of theft from parastatals. These include power outages resulting from theft from Eskom; loss of telephone contact with clients by businesses because Telkom's telephones do not work as a result of copper theft; trains not running because of theft from Transnet; and lowered production as staff cannot get to work as a result of theft from passenger trains causing disruption in commuter rail services. These are coupled with delays in traffic flow when cables feeding traffic lights are stolen.

"The increase in copper cable theft is creating an environment of a rapidly deteriorating service quality and is severely affecting the delivery of sustainable ICT services to customers," said Telkom. "In many high-theft areas, cable is repeatedly stolen, sometimes within days after replacements or repairs. The direct impact of cable theft includes the disruption of essential services and costs of replacements or repairs of infrastructure."

Mike Asefovitz, Transnet Rail Freight (TFR) spokesman, said a theft on a mainline has a ripple effect on export goods because once a train misses its slot it must wait until another slot is available. "The ship on the waiting end can therefore also not depart on time and costs the economy millions of rands," he said.

During 2010-11 financial year an average of 21 km of cable per month was stolen nationally, said

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Asefovitz. So far this financial year, copper theft averages 9km of copper cable (a month) stolen nationally.

"TFR is further working closely with the South African Police Services, SA Railway Police Services, Crime Intelligence Unit (SAPS) as well as other law enforcement agencies to curb this crime."

Asefovitz said TFR has alternative plans in place to re-route commodities to their destinations should it take longer than anticipated to normalise the network after an incident. For the six months to December Eskom lost just over R11-million due to cable theft. The electricity parastatal said it is conducting pro-active patrols to prevent incidents on sensitive installations which are supplemented by intelligence-driven operations in hot spots where cable thieves are active, aimed at identifying and apprehending syndicates and what it calls "bread and butter" thieves.

Part of the problem is that the wider consequences of cable theft are not recognised, Drodskie said. "If the authorities see the crime as the theft of nothing more than a metre of cable it is not regarded as serious and the penalties if found guilty are minor in comparison with the rewards that the thief gets by selling the cable.

"Cable theft is an international problem and sophisticated syndicates are involved. It is notoriously difficult to penetrate a syndicate and to get convictions," Drodskie said.

*From : Sunday Times*

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### **Transnet Rail Engineering Has Sold 18 Passenger Coaches And Two Power Cars To Angola**

"They were sold to Angola after Kei Rail Passenger Service running between Mthatha and East London no longer needed their service," Transnet Rail Engineering said in a statement.

The coach units, which were manufactured at Rail Engineering's main plant in Koedoespoort, Pretoria, were bought by Dominex Imports and exports CC. They left for Angola at the end of July 2011.

Transnet Rail Engineering's coach business focuses on the refurbishing, upgrading, new build and maintenance of suburban and mainline passenger rail coaches.

*From : Railways Africa*

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### **First Batch Of Specialised Rail Tank Cars Handed Over To Client** : The rolling stock and defence division of DCD, RSD, has handed over the first batch of specialised pressurised rail tank cars for an order of 95 new units placed by Sasol Solvents, a division of Sasol Chemical Industries.

The scope of the order covers the design, manufacture, testing and commissioning of the 95 units. The rail tank cars will be used by Sasol Solvents to transport chemical products within South Africa and the balance of the order will be completed by mid-2012.

Although RSD has enjoyed a long-standing relationship with Sasol that spans three decades, this is the first time the company has designed and built rail tank cars specifically for the petrochemicals group. In the past, Sasol bought operating locomotives built by RSD and the company has also been responsible for the upgrading of existing Sasol GE Class 34 DE locomotives.

RSD was initially shortlisted among a formidable group of local and international suppliers and the multimillion-rand order was officially lodged after a successful contract negotiation phase.

Executive director Carl Rehder says he is proud of his team, which he says tackled this challenging fast-track project with commitment, enthusiasm and professionalism. "Sasol Solvents has been a valued customer of RSD for some time, but this is a significant order for us in terms of value, quantity and complexity. Essentially, we have designed and built six different types of rail tank cars to both local and international standards.

"To begin with, our designs had to comply with SANS standards and Pressure Equipment Regulations, while satisfying the requirements of Transnet Freight Rail specifications, for approval by the Rail Safety Regulator. Design approval also had to be obtained from global inspection, product testing and certification

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company Intertek and from Sasol Solvents," says Rehder.

The rail tank cars were designed to meet the requirements of the American Association of Railroads (AAR), in terms of structure and strength, as well as the requirements of the American Society of Mechanical Engineers standards, or ASME VIII, for pressure vessel design.

For the manufacture of the rail tank cars, the RSD design team has harnessed specialised certified materials for pressure vessels, procured through special arrangements from local and global suppliers. Barrel assembly was undertaken in-house at RSD's manufacturing facility, in Boksburg East, using advanced welding processes, such as submerged arc welding and gas metal arc welding approved to ASME standards.

The company has its own accredited systems in place, such as SABS ISO 9001:2008, Moody International BS EN ISO 14001:2004 and Moody International BSI OSHAS 18001. These systems ensure that manufacturing processes are carried out under controlled conditions to ensure improved quality and safety, and mitigate their impact on the environment.

The rail tank cars are put through a stress-relieving process and then through a specialised paint process, to coat both the inside and outside of the barrel, to prevent contamination of the product being transported. The paintwork is done in RSD's temperature controlled dust-free paint facility.

Prior to assembly of the rail tank cars, the air brake systems are pressure-tested according to the required local and overseas standards, which include the internationally recognised AAR specifications. After passing through final acceptance testing, the rail tank cars will be commissioned at selected Sasol sites. "Our policy is to create as much work as possible for the local economy. A significant share of this project is being handled in-house, with only limited specialised componentry being imported.

To create capacity to produce the large number of tank cars to the required standards in a fast turnaround time, we have employed about 50 additional skilled personnel, who will remain on our permanent staff after completion of this project," he explains. "We are grateful to Sasol Solvents for choosing a local supplier for this order and proud of the faith the organisation has placed in RSD and appreciate the boost they have given to the localisation initiative," concludes Rehder.

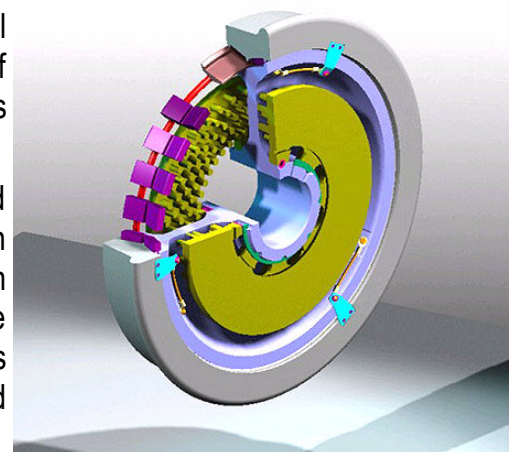
*From : Engineering News*

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### **Rolled Railway Wheels And Rubber-Cushioned Wheels :**

Bonatrans manufactures a wide range of rolled railroad wheels of all dimensions and designs corresponding to various types of applications, including drilled plates, noise and vibration absorbers and brake discs mounted on the wheel plates.

As a specific product, Bonatrans offers rubber-cushioned resilient wheels offering a high degree of noise and vibration suppression especially in the domain of urban transport. Apart from the noise-reducing advantage, these wheels also considerably reduce wheel and rail wear and the overall life cycle costs. The Bonatrans design of the resilient wheels differs from other similar designs and provides for low weight, space saving and easy maintainability.



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**PRASA To Take A Greener Route :** The Passenger Rail Agency of South Africa (Prasa) is in the process of developing its own environmental policy and strategy framework, which will be applicable to all its operating entities. Prasa head of communications Nana Zenani explains that, as part of its greening strategy, the agency is in the process of updating its guidelines and standards for all infrastructure and station facilities, as well as other works, to include environment-friendly designs and the use of South African Bureau of Standards-approved green materials.

She says that, despite the projects still being in development stage, some practical interventions are

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under way. "Prasa's R100-billion rolling stock renewal programme encompasses international specifications for green and energy-efficient technology, including green requirements for manufacturing, maintenance and spares specifications for the new fleet," Zenani states.

Further, the agency's Autopax subsidiary, which handles long-distance bus operations, purchased 570 new buses with energy saving and emission-control specifications from German vehicle manufacturers Mercedes-Benz South Africa and MAN Truck & Bus to transport spectators, officials and players for the 2010 FIFA World Cup.

Zenani adds that Autopax is also recycling its fleet's used tyres and oil, while introducing fuel-efficient measures on all vehicles to optimise and monitor energy consumption and savings. These measures include the introduction of fuel tanks at the bus depots to efficiently manage fuel use.

Further, Prasa's facilities division Prasa Corporate Real Estate Solutions (Cres) is currently retrofitting all light fittings and globes at major stations with energy-saving alternatives. Prasa's Cres is also investigating a pilot project for the testing of solar panels at major stations, which could potentially be rolled out to the entire network to augment power supply.

The division has also started looking at design alternatives for its station facilities to ensure the implementation of energy-saving methodologies that will best suit the station environments, while promoting energy efficiency, Zenani asserts. "Studies are currently under way to estimate the amount of energy savings that could be achieved through these methodologies," she adds.

However, she would not be drawn on when the final studies will be concluded. Data on the project progress will be made available once the pilot project has been finalised, she adds.

Other environment-friendly projects include Prasa's climate train, which consists of Premier Classe and Shosholozha Meyl coaches that were converted to mobile conference facilities for the seventeenth Conference of the Parties, or COP 17, conference at end of November and beginning of December. Zenani says the climate train is an initiative of Indalo Yethu, an agency of the Department of Environmental Affairs, which appointed Prasa to undertake the R55-million conversion project. The project included the construction of on-board conferencing facilities, a stage for drama performances, a video-viewing coach and an exhibition coach.

"All these initiatives form part of Prasa's overall draft policy on environmental management," she notes.

### Other Projects

Zenani says Prasa will invest R17-billion over the next ten years to install new signalling systems for South Africa's passenger rail network that will assist in its smooth operation. She points out the agency's high-volume corridors will receive priority in terms of the introduction of the new signalling system. These corridors include Naledi to Johannesburg; Pretoria to Johannesburg; Mabopane to Pretoria; Mamelodi to Pretoria, as well as KwaMashu to Durban and Umlazi.

In October, Prasa announced that it had set aside R1.9-billion to install a modern signalling system and construct the new Centralised Train Control (CTC) for Gauteng, also known as the Gauteng Nerve Centre (GNC), of which Phase 1 had started in southern Gauteng at the Lenz-Midway high-volume corridor.

Electronic and electrical solutions provider Siemens South Africa was awarded the R1-billion tender for the first-phase construction of the new CTC and GNC, the installation of new rail signalling and the implementation of critical signalling solutions. "This system is part of a new and modern railway that is in line with Prasa's plan to acquire new rolling stock that will be locally manufactured over the next 20 years from 2013," Zenani states.

The agency also issued tenders for the upgrade of the signalling systems on its busiest corridors in KwaZulu-Natal and the Western Cape, each worth about R3-billion. "These tenders are still out and no final figure has been announced yet," she notes.

As part of its investment in the modernisation of passenger rail services by 2015, Prasa has invested R373-million in the doubling of 4.5 km of railway tracks between Eerste Fabrieke and Greenview, the upgrade of the Mamelodi Gardens and Pienaarspoort stations and building a new station at Greenview. Zenani explains that the doubling of the railway was necessitated by the current single line's inefficiency, which results in commuter waiting times averaging 15 minutes. However, she says the railway-doubling project has

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been faced with some challenges.

“Construction works are currently under way, while the line is operational, owing to the demand and pressure for rail services. “Communities within the Mamelodi and Greenview areas continue to be inconvenienced, owing to the historic station locations that did not cater for them,” Zenani adds.

The railway doubling, station upgrades, construction of the new Greenview station and additional platforms, as well as the introduction of bidirectional signalling is expected to be completed by March 2013.

*From : Engineering News*

**THIS MONTHS SMILES :**

**1.** A mother was working in the kitchen, listening to her five-year-old son playing with his new electric train set in the living room. She heard the train stop and her son saying, 'All of You B\*\*\*\*ds who want off, get off now, 'cos we're in a hurry! And all of you B\*\*\*\*ds who are getting on, get on now, 'cos we're going down the tracks'.

The horrified mother went in and told her son, 'We don't use that kind of language in this house. Now I want you to go to your room and stay there for TWO HOURS. When you come out, you may play with your train, but I want you to use nice language.'

Two hours later, the son came out of the bedroom and resumed playing with his train. Soon the train stopped and the mother heard her son say,

'All passengers who are disembarking the train, please remember to take all of your belongings with you. We thank you for travelling with us today and hope your trip was a pleasant one.'

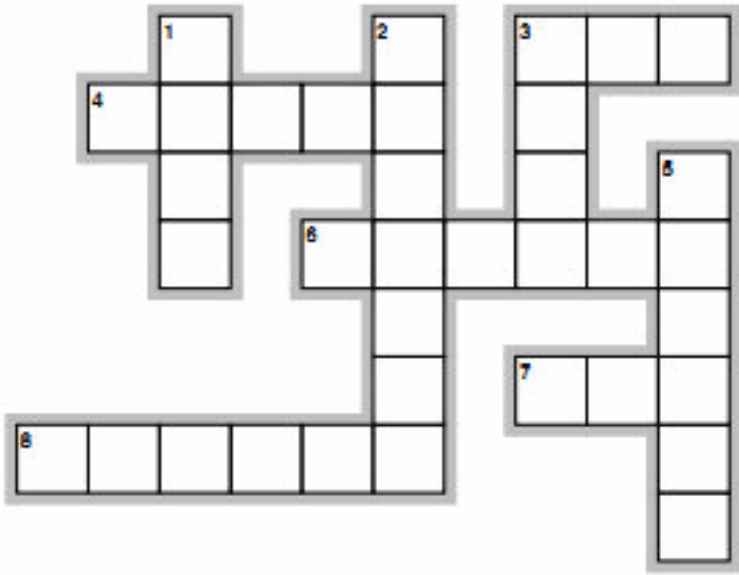
She hears the little boy continue, 'For those of you just boarding, we ask you to stow all of your hand luggage under your seat. Remember, there is no smoking on the train. We hope you will have a pleasant and relaxing journey with us today.'

As the mother began to smile, the child added..... 'For those of you who are pissed off about the TWO HOUR delay, please see the fat controller in the kitchen.'

**2.** In case you don't believe it, here is proof of life after death. The COMMUNICATION WORKER'S UNION says in its notification of changes to its funeral plan; 'All deaths that occur after July 2009 are subject to the following clause: you only have six months from the date of death to submit your claim.'

Crossword Puzzle

by Dawie Kuyler



**Across**

3. old cape name (3)
4. siding on pass (5)
6. end of line by the sea (6)
7. transnet (3)
8. from here to knysna (6)

**Down**

1. friends (4)
2. bulk export by rail to saldanha (7)
3. epping (4)
5. mountain cocomotive (6)

Answers : 1 - FOTR ; 2 - Iron ore ; 3A - CGR , 3D - CWRS , 4 - Power ; 5 - Garrat ; 6 - Knysna ; 7 - TFR ; 8 - George