



RAISING FUNDS FOR REPAIRS
PLEASE HELP US GET OUR IRON LADY BACK ON THE RAILS

1). DONATIONS DRIVE REPORT :

For those that have donated or committed so far, thank you very much!

DONOR:	DONATED:	DONOR:	COMMITTED:
Allan Waterston	R 250.00	Andrew King	R 20,000.00
Aidan McCarthy	R 1,200.00	Coen Pretorius	Still to decide
A.J. Hamill	R 500.00	Dylan Knott	Still to decide
Book and DVD Sales	R 2,080.00	Richard Niven	Still to decide
Bryn Morgan	R 270.00	Robert Cousins	R 500.00
Carl de Campos	R 500.00	Shaun Ackerman	R 1,000.00
Francois Lubbe	R 250.00		
Geoff Cooke	R 250.00		
Greg du Plessis	R 569.42		
Hannes Paling	R 5,000.00		
Henry Lazenby	R 250.00		
Lee Gates	R 10,000.00		
Les Smith	R 250.00		
Sandstone Estates	R 500.00		
Stewart Currie	R 3 000.00		
Tony Elliot	R 100.00		
Total Given:	R 24 969.42	Total Committed:	R 21 500.00

Total for project so far is R 46,469 over R 45,000 (Rands only)

We have done very well to raise or commit to the original projected funding level of R45 000 in such a short time. However, cracks have been found within the 15F locomotive’s now-exposed foundation ring, which will necessitate further grinding and welding, as well as extra visits from the boiler inspector. We still need to get quotes from the workshop boys and the 15F 2914 Project Leader George Hoddinott, is working on getting the extra costings in.

So, we will need to raise the target on the donation drive. An initial SUGGESTED figure is R 60,000, so let’s continue to push this incentive. I will publicize the new target as soon as I can get the quotes and the go ahead.

Unfortunately, this is the inherent risk of working on 60-plus year old machines – you often find or uncover other faults when the projects start.



Class 15F No. 2914 (Then named ‘Elize’) approaches Vlakdrift in 2005. (Pic by Aidan McCarthy)

2). 15F 2914 'SPIKKELS' FIREBOX REPAIR WORK :



F02 – As revealed by the MPI, here is the crack damage to the foundation ring. We were already aware of the lower crack, which goes right through the rivet hole. And there are fractures in the center of the steel mass above the hole.



F03 – The other 50mm long crack from the top rivet hole was a surprise to us. Fortunately, it is easy to reach for welding. This crack leads directly into the water space between the inner and outer firebox plates.



F03 – The old and new firebox inner corner plates waiting in the workshop canteen. The currently oversized patch will need to be hot-rolled to get that curvature right without cracking.



F04 – Aidan McCarthy has been keeping himself busy by removing the cladding from the left flank of the firebox. You can already see some revealed lime scale streaks from stays and stay covers that were once leaking in service.



F05 – It is unpleasant work to expose the stay caps – rusty, sharp-edged cladding plates to be removed and obnoxious thermal lagging beneath. Many of the plates were welded together instead of being bolted to the crinoline bars.



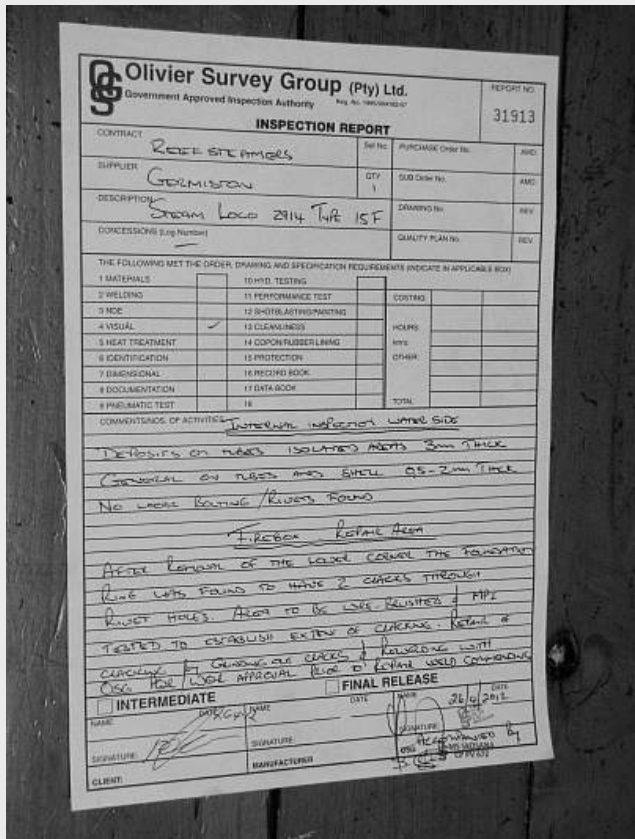
F06 – Some clean-up work still required. Some of the truncated foundation ring rivets need to have their outer ends removed. Two stay cups got bent in the process of whacking out rivets too. Note the cladding's crinoline studs.



F07 – This old flexible stay put up a good fight. You can see the washer which provides the flexibility for the head, whereas the screwed-on cap provides the actual pressure seal. This stay rod got bent while being hammered out.



F08 – For comparison, here are some new flexible stay seats recently made and fitted to Umgeni Steam Railway's Class 19D. Note that one has already had the stay rod inserted and tightened. (Pic. by Edwin Andy Anderson.)



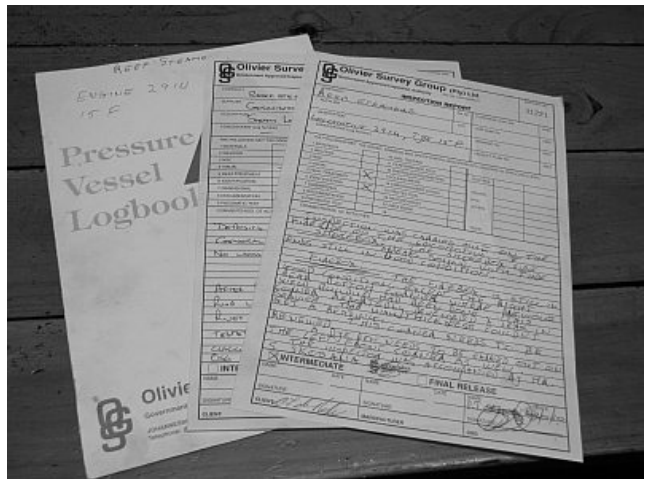
F09 – We are not 'winging' this project. Here is the boiler inspector's visual report from 26 April 2012 :

Internal Inspection - Water Side:

- Deposits on tubes in isolated areas = 3mm thick.
- General deposits on tube and shell = 0.5 – 2mm thick.
- No loose bolting or rivets were found.

Firebox Repair Area:

After the lower corner was removed, the foundation ring was found to have cracks through rivet holes. The affected area to be wire brushed and MPI tested to determine the extent of cracking. Repair by grinding out the cracks and then re-welding. Olivier Survey Group PQR/WQR approval required prior to weld repairs commencing.



Here's the Pressure vessel log book for 15F No.2914. The report at the top of the pile is an older one from 20 Jan. 2012. The report says :

Inspection was called out on the fire side of the locomotive.

Smokebox:

The smokebox side appears to be sound with tube ends still in good condition.

Firebox:

The firebox is still in good condition, except for the right rear bottom corner where previous weld build-up had been done. The corner reportedly developed a leak in service. I couldn't get a reading for the wall thickness.

This corner needs to be renewed.

A dye pen test needs to be carried out on the left front corner as well.

The inspector was accompanied by Mr. A. Skosana.

Readers must note that the known drafting and seating problems within 2914's smokebox are out of the scope of the boiler inspector – who was focusing on the pressure vessel components of the front tube plate and tube/flue ends. The lack of draft is the coal cat's problem! ☺



F11 – Like most machines, steam locomotives follow McCarthy’s Law of Dismantling. The area taken up by the removed parts will expand to take up all available floor space – irrespective of the original size of the machine. This grotty-looking photo is a junk pile of 2914’s rusted cladding, old insulation and some straps, lying on wet concrete where they were tossed down from above. This area has, of course, since been cleaned up.



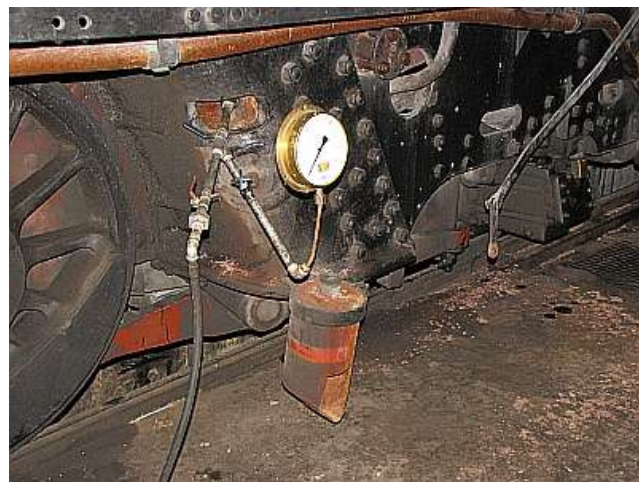
F12 – There is a story here that some ou spoorie just ain’t telling! Notice how the end of 15F 2914’s red-painted buffer beam has been torched off and then ground straight? I wonder what they clobbered with the old machine? I wonder if the repair was officially booked or some sneakily done work on a back-track in some quiet yard somewhere?

3). 12AR BOILER INSPECTION:

At the time of writing, (09 May 2012), the 12AR’s boiler has been hydraulically pre-tested and a few problems have been revealed. Five tubes and a flue are leaking. However, this is not an unexpected issue as the tubes in that boiler ARE elderly, and the week-day workshop gang will start the repair project as soon as practical.



B01 – The Class 12AR No.1535 has passed her visual boiler inspection – which means that the somewhat wasted front tubeplate is good for another few years. Discipline in the after-run cleaning has arrested further corrosion.



B02 – Pre-hydraulic test leak-busting. This set up is a bit unusual for us as we usually blank off the blow down valves at their outlet under the valve body. But we have blanking plates for 1535’s blow downs – you see them at top center.

4). COACH WORK :



C01 – Just a reminder, one of the coaches currently being worked on is the UCW-built coach (1970) kindly donated to us from NPC Simuma and brought to her new home from Port Shepstone on 2nd January 2012.



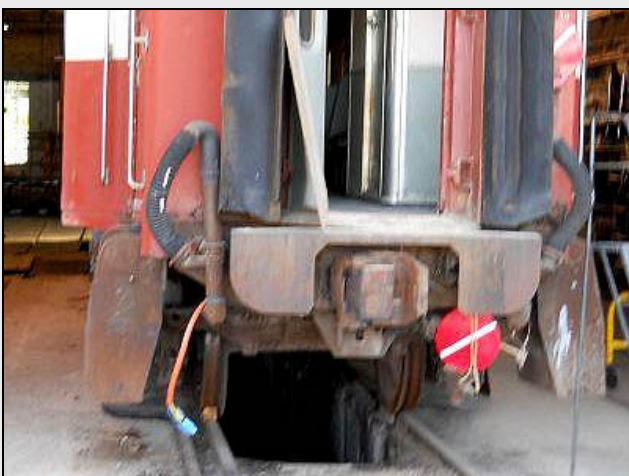
C02 - The new 220 Volt coach lights have finally arrived. We have been testing these electronic ballasted starter-less energy-saving high intensity tubes. These tubes were supplied compliments of Robert Cousins.



C03 – The ‘Semuma Coach’ is being upgraded to use 220V power, like all the other coaches. The size difference of new distribution board hardware is remarkable – showing several decades of development of MCB switchgear.



C04 – An external view. As the coach only has a single cabin instead of multiple compartments, the board is relatively simple. Notice that the Earth Leakage is an isolator (green) – the mains is protected on the live side.



C05 – Inter-coach mains wiring is now in place. (The orange wire strapped to the train brake line.) The coach wiring is being done during the week by John Dunn.



C06 – A newly ground-down MIG-welded patch on the Sandstone Sleeper No 28332. As the base metal is more sound on this coach, it is being used to fine-tune the tricky combination of welding techniques that are required.



C07 – Now for the worse side! We are learning how to weld in patches on the rusted Sandstone Sleeper, using a combination of MIG, TIG and stick-welding for the job. So, the patchwork will not be so simple and straight forward.



C08 – A assortment of magnets hold this patch in place, so the measured steel doesn't go astray. This scary looking hole started as a fine vertical crack over the frame – and ever-more rusted metal was revealed when it was cut back.



C09 – Tin-worms usually pupate after monsoon season and then fly away, leaving characteristic chewed holes. A common starting point for the rust are the drainage paths from the inset and unsealed window apertures. Seen here through the hole is a window glass runner.



C10 - A lot of our coaches have this sort of damage above their footing rails. It is caused by leaks and condensation from the steam-heat lines within the coach. The bitumen sealing also tends to fail here, providing close, laminated layers that wick up the condensate and rain water.



C11 – This rust pattern is unusual. We believe it to be from chemical fumes rising from the toilet (Bleach or Ammonia) from when the coach was standing plinthed and coupled to the Locomotion Restaurant in Weenen. The majority of the rust on our coaches had started from the inner panel sides.



C12 – One of the few examples of external rust on sound plate work. It takes a good workman to resist the temptation to just patch and paint over a rust hole instead of bravely cutting back. But a bodge job just won't last on a steel railway coach, especially when parked in sun light.



C13 – An unusual sight, a coach in residence in our adopted Running Shed. The Sandstone Sleeper has been parked undercover to keep the wind from interfering with the welding work – which is presumably tricky enough!



C14 – There's somthin' crusty - in the neighbourhood! Who ya gonna call? (All shout) **RUST BUSTERS!** It's 3pm and they've had enough - Alan wheels out one of the welders to the new Coach Works Store while Gordon follows behind.



C15 – Coach No 28332 takes on a different look at night with the interior lights energized from a land-power line. With the elimination of the original inverters, the lights actually draw less current than they originally did, making hooks ups easier.



C16 – Here is the still rather raw scullery area being made up for the 'Locomotion' coach. The stained area on the wall is where the corner basin used to be. The coach boys are planning to do some much-needed surface preparation and then to apply white enamel paint to the whole compartment ... before installing the new sink. They might even rip out the old toilet floor pan and put in something more robust and waterproof.

As is usual with this sort of project, complications occur. Here, it was the realization that the door into the new scullery (ex-toilet compartment) is too narrow to carry a standard tray through. Answer : Remove the door and the widen gap. Result : We had to remove most of the compartment's rear wall! Oh well.



C17 – Reefsteamers is in the awkward situation of having about 8 regulars who are trying to look after all the locomotive repairs as well as the coaching stock. We desperately need people who are willing to consistently take on the numerous small improvement and repair projects required in the coaches. Here, you can see a patch neatly installed on a vestibule inset wall where a damaged drinking-water container enclosure was removed. (The drip tray still remains.)



C18 – The ‘Sandstone Sleeper’ No 28332, being the ex-Locomotion Restaurant Dormitory coach, now has a full set of working ventilated shutters for the sleeper compartments. Our guests can now have the windows down and still get some ventilated privacy.

It also prevents enterprising youngsters from chancing their luck by reaching in through the windows from track-side and fishing around for passengers’ valuables left on the folding tables just beneath the windows. A parked train draws them like magic (especially at Ficksburg) and security guards that we take on long distance trips have to be alert! The shutters are also much more robust than the usual domestic roller blinds or venetian blinds, which don’t last long in coach work.

We plan to continue this shutter-relocation project with the rest of the sleeper coaches as several coaches, such as the bar/lounge coach, have working shutters that are not really used. We are only ‘shuttering’ the sleeper compartment windows – the corridor windows being left as they were.

In an ironic twist, the priority coaches to receive new shutters are the standard class sleeper coaches like this one. The more upmarket silver and gold class coaches do not have the original fold-down table/sink assemblies under their windows. The ‘Sandstone Sleeper’ has usually (but not always) run as a staff coach on long distance trips. When the current improvements are complete, it can enter revenue earning sleeper-service.

5). AROUND THE DEPOT :



M01 – Not content with sparking welding gear, our resident pyromaniacs Lawton and Gordon have struck again! This is a controlled burn of still-slightly green grass to cut down the wasteland's fire load before the upcoming dry season.



M02 – 'Now, where the heck is my hard hat I KNOW I had it just now!' This little 1400 Nissan trying-hard-to-be-a-bakkie (as true 'bakkies' have separate cabs and load beds) has extra roof protection on the driver's side today!



M03 – The 'interesting' wiring at the depot is gradually getting sussed out! These old lights have been restored to action by tapping power from the ex-upper-machine shop DB, and the other (corroded) end safely terminated. How nice it is to have ample lighting in the oil store and not to have to TASTE the difference between Steam Oil and MH!



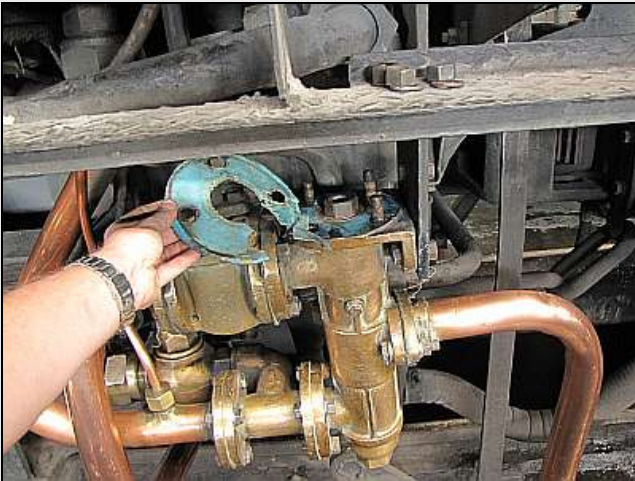
M04 – Although a certain clapped-out old 15F is hogging most of the limelight with her dramatic repairs, the depot wheel lathe rebuilding project is still going on quietly in the background. New gears are still being cut one-by-one and new keys are being manufactured for the freshly skimmed shafts.



M05 – Trying out a flangeless pair of 14R drivers for fit on a oxide primed vandy tender? Back to the drawing board!



M06 – Rhapsody in red ... a pile of brake beams, pull rods, relay rods, and a spring bracket await re-assembly.

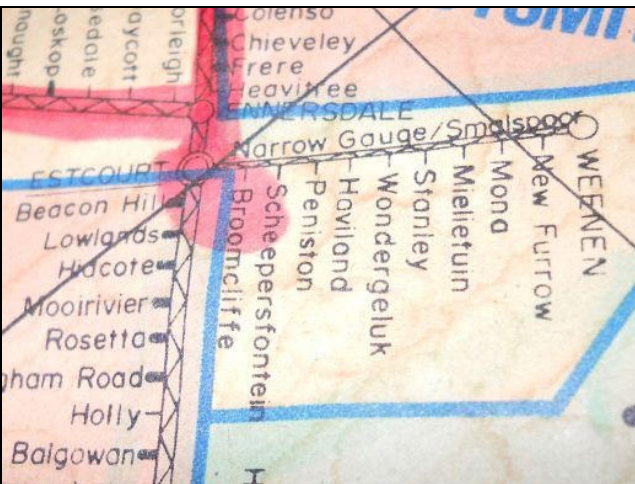


M07 – A blown gasket on the top cover of 15F 3046's left injector. Cause – incorrectly rated gasket material.

'Wuzzunt' me! ☺



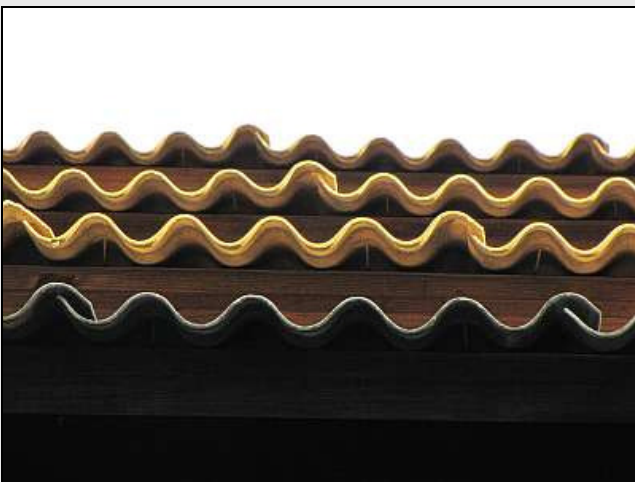
M08 – Sneaking a snooze! The weekend SANRASM Magaliesburg Express train was cancelled due to the lack of passengers, so Class 15F No.3046 'Janine' lies cold and alone. She would have normally been happily raising steam by now, with people fussing around her in the shed.



M09 – Here is a section of a Spoornet network map, that is showing the Estcourt / Weenen narrow gauge line. Notice the order of the listed stations. Most of them are still commemorated on the compartment doors in the Sandstone Sleeper No 28332, which was once plinthed at Weenen as a part of 'The Locomotion' restaurant complex.



M10 – Alan and Gordon having fun in the depot – we were taking present-day photos at the same angles as a 1980's Germiston Shed photo collection posted on FaceBook by Phillip Braithwaite. (Alan is holding the printouts.) Gordon is pointing at the faint square shaped outline in the grass where the washout bays' water tower used to stand.



M11 – A Dianderson-type study of the old running shed's roof. Noticed they only overlapped half a corrugation...



M12 – Unnoticed detail. Loco-blast deflector shields are still protecting the steel beams in the old running shed.

6). CASUAL SOCIAL (EVE OF MODEL STEAM NATIONALS) :



S01 – Not quite the ash clearing that he had in mind... Duty loco minder Cousin Rob cleans out the half-a-vacuum reservoir braai while the visiting Banana Fruitcakes, Ryan Fincham and Andries Keyser, are taken on a depot tour .



S02 – A Mienie Blow Down. Although not strictly required for every run, some of us bake-heads are getting into the habit of opening the lubrication line chokes and blowing out the oil lines well in time before the morning preparation.



S03 – The wizardry of efficiently lighting up a charcoal fire – something that I've never managed to get the hang of. Must be a South African thing...



S04 – Now then, who is suspended on this absolutely MAGNIFICENT pair of drumsticks? There's hardly enough protein there to make a decent potted-meat sandwich...



S05 – Kasey Keyser has just discovered our human-powered ganger's horn trolley and is happily squeezing off a few fruity parps while Victor wisely stops up his lugs. Kasey didn't know the unspoken depot rule – whoever hoots, brews. (The tea.) But we let him off as a guest.



S06 – Here's the ganger's horn trolley and every steam club needs to have one. You can pump right through the dual horn trumpets, or charge the reservoir and blow the horns independently in a medley of two-tone notes. And yes, we DO really use it to call the club members in for tea!



S07 – Nothing quite like a braai in a real steam shed next to a live locomotive. Loco Minder Rob is a decent chap but is not really a people person, so he was quite happy to stay and look after the big coal fire as well as the cooking fire.



S08 – Another Keyser pic. In the top forge area, Kasey demonstrates the lost art of sitting on a blacksmith's anvil. The idea is to sit forward so the contents of the scrotum are not snuggling up to lots of autumn-chilled steel.



S09 – Ryan Fincham now lights, minds and helps to fire locos for Umgeni Steam Railway, and he owns and drives a large scale model loco at the PMES – including regular passenger haulage. He has come a long way with his steam hobby and his journey started right here with a certain 15F and a 25NC.



S10 – As the lingering chill of the night settles in towards pumpkin hour, we are secure in a corner of our own little steam-powered world, enjoying the ambiance of a culture and technology whose time has passed. And within those memory-saturated walls, we are reaffirming old friendships and establishing new ones – in the way that only real steam preservationists can.



S10 – Reefsteamers welcomes everyone but it must be understood that we are generally meat eaters, and our standard quick-cuisine is wows in a plain bread roll. Butter, marge, onions, tomato sauce and mustard are optional extras and oily gritty hands just add to the taste and texture.



This Depot Report was compiled by Mr. Lee D. Gates on behalf of Reefsteamers Association NPC.
For observations, corrections and suggestions – email me at documenter@reefsteamers.com

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