



TU10 – The steam locomotive equivalent of ‘one for the road.’ Elize gets a tender top-up from the parachute tank and this will be the last drink until arrival and shunting at Boksburg East that evening. The first of the four safeties have lifted again – this one is the one of the two Ross-pop type valves.



TU11 - Johann Breydenbach is doing the honours at the water tower. This move is a little unusual as we normally coal up and service the engines the evening before they run and the locomotive minder is tasked to fill up the tender ... with a boring hose. Short-statured Johann looks quite tall in this picture but he's actually standing on the vacuum reservoirs.



TU12 – Being such a colourless day I thought I'd try a doggie-eye view of the locomotive. Impressive! Perhaps the only thing that would date this picture would be the white PVC drain pipe along the wall and the stencils on the power van.



TU13 – With the tankers and the 25NC locomotive out of the way, the 12AR pussyfoots over a set of points to take her position behind the waiting train. Susan's ample cylinder cock discharge cloaks the sad condition of the stored 14R with the two flangeless center axles missing. (Actually in the 15M yard.)



TU14 – Safety Officer Clifford Matthee talks the driver in for coupling. The 12AR would push us out westbound through the yard, and then pull us eastbound on the yard siding and couple up with the 25NC and the two waiting tanker cars. The hydraulic grab wagon and the DZ full of coal are still coupled at the other end of the train and would be riding at the tail end during our trip to Boksburg East.



TU15 – In the previous picture, Clifford was using a radio. Although we keep the radios switched on permanently during locomotive movements, we usually use hand signals if visibility allows. The old fashioned flags come with us on every trip too.

3). DEPARTURE :



DE01 – No matter how much you've worked on a train, or the locomotives, or how many trips you have been on, there is always something special about the imminent departure for a long trip – the moment when the when the steel wheeled adventure actually begins.

Andreas Matthee, who could only take a half day off work today, actually works for Transnet and even he's excited to be off. Check those pecs, girls!



DE02 – Having claimed his bunk, fireman Michael Thiel shows off raspberry cupcakes made for a family birthday celebration.

We were scheduled to leave at 3 but shifted out at 3:30pm. However, it is very easy to be left behind if you're pottering around in the large depot doing last minute tasks.

Many of those cupcakes didn't last long enough to see the main line!



DE03 – That magical moment, when the train began to roll under its own power for the first few meters of the 920km round trip. What is an unusual sight here is the steam billowing under the roof and fluffing up the feathers of the resident pigeons. We're actually moving backwards towards the viewer and that steam is from the 12AR pushing the train.



DE04 – Our train has been shunted out into the weed-grown 'boonies' of our siding. We always have to do at least one switchback move to get into our depot and usually do more. Train Safety Office Clifford Matthee, in the starting drizzle, tramps back to the rear of the train to coordinate the throwing of the points and conduct the rearward motion of the train. Notice the cantenary in the background – our siding is electrified.



DE05 – We've come forward on our siding and are now waiting for the points (electric) to be switched over to get us onto the main down-goods line. One of the reasons why we stopped using the Boksburg East station as a stop is because of the many points we have to use and tracks that we have to do switch-back motions on – each one a waste of time and potential delay should something go wrong ... as it frequently does.



DE06 – The rain is rising but it doesn't dampen the spirits of our enthusiastic crew members. The rain was coming down from the right to the left and as the Power Van's corridor is left-oriented as opposed to those of the coaches, the gophers had sheltered space to stick their heads out. That's Banana-boy Fincham in front, James Thomson (Elbow), Andre King, Chris Saayman and Coenraad Gildenhuis. You can just see the locos running tender first with the two tankers between them



DE07 – Then the rain came down ‘handsomely’. The water came in through the one guard’s door and cheekily cut right across the power van’s kitchen before running out to drain under the other door.

It’s quite remarkable how much rain water a stored foam mattress can wick up! And equally remarkable at how long a foam mattress can stay soggy ... poor Maurer....



DE09 – Luca Lategan has been ‘whipped up’ into doing something useful – making some most welcome hot cups of coffee. He did so quite cheerfully as there isn’t much to do on a stationary train.

It is a really sissy way to drink coffee though – electrically heated and served in polystyrene cups. We’ll be using rainbow crystals in the sugar next! Ugh! Railway coffee should be heated in a ‘Billy can’ on a loco fire, or perhaps a guard’s stove and drank black n’ steaming from uninsulated metal cups.



DE11 – With the anteduvilian amounts of rain that had come down during the week, the roads were flooded and we went over an underpass that was filled up to the cross beams with murky lapping water. This rarely-used shunting yard at the west end is on higher ground and currently stores a work train.



DE08 - Yessir, Mr. Engineer! Nossir, Mr. Engineer! I won’t use an adjustable wrench as a hammer again, Mr. Engineer! I promise I won’t! Cross my heart!

Pul-e-e-e-e-ase don’t eat me!

Andrew King looks quite stern here, but he’s actually deep in thought and absently rubbing his upper lip. (I wonder how many apprentices he has scarred for life in his career though...)



DE10 – A dreary but very welcome sight after being stuck for an hour on the second set of points. The signal cabin insisted that those points have been disconnected from their panel and were no longer available – which would of course cause problems with the signalling should we move onto the line. They had to clear the line and sent a runner out to change the points over by hand. Meanwhile, we had used those points just four days previously with no problems. (And have used them since...)



DE12 – Yay and Yuck! A thoroughly cold, mizzly, wet arrival at the Boksburg East goods platform. The people scrambled to park their cars under the roof but that roof is a religious one, being quite ‘holey’ and let zinc imbued water through anyway!



DE13 – This goods platform isn't sized for passenger trains. As the two locomotives have to be lined up in reach of the fire hydrants at the other end, the coaches are offset and the train overhangs from this end of the platform. It makes boarding a little awkward for passengers with bulky luggage as they either must climb high coach steps from ground level or manoeuvre through the narrow corridors of the train.



DE14 – Heritage bonus – a rare Austin Maxi 1800, aka 'The Land Crab.' This is the last of Alex Issigonis's front wheel drive designs with an enlarged version of the classic Austin B-series engine. These cars were noted for structural rigidity and roomy interiors but also for heavy steering. This is a very rare Mk1 model with a one-bar mesh grille, the 'cow-hips' rear end and horizontal wrap-around taillights.



DE15 – Here's the 2nd shunting move. First the two locos, with the two water tank cars between them, were run out past the eastern yard points and then the pair was split up. The 12AR is pattering forward with a tanker in tow while the 25NC with a tanker at the wrong end, can be seen waiting in the far distance.

That works caboose is clearly marked 'For Explosives Trains Only. Return to Isando.' (Isando translates as 'hammer' in isi Xhosa.) It has been resident in this yard for several years although it gets used as a shunter's caboose on occasion.



DE16 – The 12AR No.1535 sniffs along by on a rarely used goods siding with her assigned 31 000 litre water canteen in tow. Although that fire fighting pump on the rear platform has been made ready and its tarpaulin has been removed ... hopefully with all the rain, there won't be a need to use that equipment to fight lineside fires!



DE17 – The Class 25NC now makes her contribution to the 1:1 scale shunting puzzle by bringing her tanker along a parallel track. Johann Breydenbach is in action as the shunter and is leaning out for good visibility. It's also safer practice when being pushed by a loco as if you slip and fall, you'll fall out of the path of the advancing wheels and overhanging cylinder chests.

Notice the difference in size between the tanker and the locomotive. The tanker size is limited by the center of gravity and the possible affects of transverse 'sloshing' of the contents.



DE18 – The long 96 foot length of the Class 25NC is obvious as she has come to a halt on the iron-ribbed center stage. A commuter train has just come in at the background and many commuters had their steam shunting show abruptly truncated.

The 12AR, out of frame to the right, had started off moving further westward to clear the platform points. With the 12AR out of the way, the 25NC here can run back to the eastern points and switch to a parallel track and run past and back up to this tanker.



DE18 – There has been a change of plan and fireman Philipp Maurer is hot-footing it to the waiting 25NC to update the driver and the puzzled but patiently standing Johann B. Behind him, the 12AR moves off to be able to move over to the track on the left. Shaun Ackerman, driving the 12AR is the one actually orchestrating this shunting – the firemen are acting as the shunters. Clifford is watching the general area for safety.



DE19 – Well, now we're back to square 1 and the double-patty tanker sandwich has just been made up again! Grey clad Philipp is coupling the brake lines together between the two tankers while Johann Breydenbach is uncoupling the tanker from the 25NC at the rear of the train. The fellow standing at the rear, dressed in all-over blue is Clifford Mathee in a really neat rain mac.



DE20 – Generation Gap. Another commuter set comes in – smack in the midst of peak hour traffic for this damp Friday afternoon. I wonder what the passengers thought of the sight of two steam locomotives parked in the middle of the yard with two tankers between them? What a funny looking train! Many of the Zulu folk still refer to any type of train as a 'Stimela' – the legacy of steam lives on!



DE21 – As watchful as Clifford is, he doesn't have eyes in the back of his head. A pedestrian, worried he's going to miss the commuter train that has just come in, scurries across the tracks right behind the Class 25NC's tender. Because of the flooded underpass, we had a number of pedestrians sneaking across the yard and we had to be careful – I was also watching out for them as the photographer. This is the sort of thing from which 'rail kills' are made.



DE22 – The Class 12AR moves off with the two water tankers in tow, to move westwards and then to reverse and run the rear tanker back into the same siding as the waiting passenger train. Driver 'Smudge' Ackerman already has his hand ready on the brake lever but it's still in the 'run' position.

'Smudge' is just about to start a mild brake application so that shunter/fireman Philipp Maurer can jump off safely to change the points.



DE23 – Evolution in action. There is a confrontation going on in the background as Clifford Mathee tries to stop impatient commuters from crossing the tracks behind the train. Philipp is now back in the cab and Clifford is to take over the shunt. Susie is actually stationary. If the driver can't see the shunter, or don't get a radio message every few seconds – he to release anchors and make a firm controlled stop. Clifford (in the blue rain mac) is on the blind (fireman's) side of the engine – the shunt will not take place until the driver can see him directly.



DE24 – ‘Smudge’ Ackerman slaps her closed. When a steam loco is standing still, when the regulator is first opened and the cylinders have filled with steam, there is no longer any flow across the regular valves and thus there is no pressure drop. Steam pressure in the cylinders then matches that of the boiler.

The locomotive will try to move off under full pressure. That means a rough start under any circumstances – especially if the couplings are slack. If the rails are wet or sometimes if the boiler is at full pressure on a grade or with a heavy train, the wheels will spin in that first movement. (An experienced fireman will thus make sure that his boiler is NOT bubbling right at the red line for a difficult start.)

A skilled driver quickly snaps the regulator shut – the pressure drops and the train begins to move. Once the pistons are moving and a steam flow is established through the regulator, the regulator starts to regulate the flow properly. Sometimes the driver has to open and close the regulator several times in quick succession to get the train, and hence get the pistons, moving before he can pull it open up a bit and latch it on the quadrant.



DE25 – Right hand drive! We don't just mean the seats but also the position of the regulator. Most of our locomotives have the regulator located to the driver's left.

The visible gauge is the speedometer.

The ‘plain’ tanker has been coupled to the waiting train and ‘Smudge’, Susie and little me are just moving off from the goods platform siding, with Susie's fire fighting tanker in tow. The reverser has just finished lowering the radius rods, putting the locomotive into forward gear. The Hadfield Power Reverser's old fashioned steam exhaust, a vertical copper pipe mounted just behind the RHS cylinders, can still be seen discharging.

Once we're out of the way, the 25NC No.3472 can then back into this track and couple up with her tanker BEHIND her bustle, at the right end.



DE26 – The ponderous 25NC rolls in like a loaded coal barge – a lot of inertia with which to deal with. She is still on the outer line of the yard. Fireman Johann Breydenbach is out of sight behind the tender (correctly on the driver's side) and he is conducting the shunt via hand signals. The 12AR is out of frame to the left – sitting quietly on the curved yard lead.

That white post in the foreground is a stop marker.

If you look above midway above the tender, you will see how the cantenary wire splits above the points, midway between the overhead gantries.



DE27 – Philipp Maurer waves the 12AR and her tanker back into the goods platform siding to couple up to the front end of the waiting 25NC. There are several different styles to this signal.

Philipp is rotating his hands and upper arms in a contra-rotating conical pattern – meaning to ‘move slowly into coupling range.’ As the tanker draws into coupling range, the signal changes to a rhythmic waving of the bent arms above the head with the hands drawing ever closer together – almost like lobster claws.

A skilled shunter allows for the inertia of the moving train and makes the ‘contact’ signal (Joined hands together above the head) several moments before the couplers actually contact each other – and the inertia of the train, combined with the driver's braking action, makes a gentle coupling.

Of course, the longer the moving train, the heavier it is and the slower the response of the rear end of the train to variations in the braking vacuum.



DE28 – At last the two locomotives and the lead tank are in their correct order for the long run. They are just about to start moving off backwards now to couple up to the train. The Class 12AR is still sitting on the points for the yard lead. She is about to disappear behind the copious steam discharge of Elize the 25NC's cylinder cocks.

Notice that the station's steam-age parachute tank is still sanding being the loco cab and it looks to be in fair good shape too! That signal refers to the track on the left.



DE29 – Drying out my leather Bramah Drover's hat – you can see the 'steam stream' coming off from the crown and being drawn into the firebox.

An Australian Drover's hat is an odd hat to wear for steam train work and is neither cool or nostalgic. However, it's great for shading the eyes. More importantly that wide, spring-loaded brim protects vulnerable hearing aids from sprayed water, prime water and light rain.



DE30 – Johann Breydenbach gets busy laying the first of several banks of coal. The steam pressure is down but the entire firebed is aglow – a perfect combination to get a thick bank of coal burning from the front edge. Because of the rain, he's wearing a baseball cap instead of his usual formal beret.

If you've been reading this report attentively you'll notice that Johann has been on duty all day. He is also tonight's locomotive minder. He doesn't stop – but Johann isn't really a 'sit saam en kuier' (Sit together and visit) type person and would rather be active and busy, even if he has to do it alone. Of course he sometimes gets exhausted and perhaps a bit grumpy. But it takes all kinds of fruit to make the Reefsteamers fruit salad, does it not?

Having said that, I've become quite fond of old Johann B. – he is a good man and a patient teacher – having taught me a lot!



DE31 – The problem with 'mechanicals.' That tunnel housing for the ascending stoker screw really gets in the way when you're firing right into the back corners. The short guys have an easier time of it because the taller you are, the more you have to flex your knees.

Notice Johann's posture. His pelvis is torsionally in line with his back – hence no twisting and strain. You can see by the relative angle of the right thigh, pelvis and the lumbar region that he isn't bending his back much – the shoulder area and the left knee doing most of the work. Firing is more about posture and technique rather than sheer brute strength. Even the most muscle-bound weight lifter would only last five minutes in the cab if he stands with the wrong posture and uses his back to do the shovelling.

Stories abound of 'skraal oukies' (Wiry, skinny, young men.) who are tough, competent firemen and this is the reason why.

4). BOARDING AT BOKSBURG :



BE01 – Les and Sandy Smith stand duty at the booking table tucked carefully under a section of the tin-worm eaten corrugated roof that doesn't have leaks (yet). It was chilly work and they had to resist taking a nip of the complimentary sherries laid out for the passengers. Although the booking desk officially closed at 7 pm– soft-hearted Les hung around for latecomers.



BE02 – Just west from the station is an underpass for a main road and it was flooded right up to the bridge beams with the constant rain. Many passengers had to take detours in an area they don't know and not covered by our downloadable map. Thankfully, no one got totally lost but several groups of people, like these, were confused as they tried to board, inn the gathering gloom, at the empty end of the station.



BE03 – This train of four derelict AY type longitudinal dump wagons, previously used for ballast, have been standing on this spot for over three years. It's strange that they have survived the scrapping program. But they are in nobody's way, and being missing most of their couplers and all the bearings, they are probably just too much hassle to move.



BE04 – The temperature, never pleasant, was dropping rapidly with the light and unlike previous years when they mingled on the platform, the passengers stayed inside in the warmth of the coaches. The fellow approaching the camera deserves a medal for bravery (Or perhaps a Darwin Award). He is fireman Dawie Viljoen and he brought BOTH his wife AND his mother-in-law on the trip. (As paying passengers.)



BE05 – No.127 'Kango' the Kitchen car isn't yet officially open but the Shongololo Express staff needs to be fed. So they are getting by on a simple meal of boerewors and pap with minimal washing up to do afterwards.

This team ate early and hit the sack early too – as they would have an early start the following morning to make breakfast with the train on the run.



BE06 – The passengers were to fend for themselves on Friday night due to the logistics of providing meals while still setting up – as we did last year. However, we did have a very late night braai (BBQ) for the crew – under the roof as it was very cold in the exposed area of the power van where we originally planned to do our cooking. Hennie and Hester, in the foreground, assisted in setting up the train. That's Michael Thiel in the center – one of the usual Reefsteamers braai meisters



BE07 – Bar keep Joey de Beer is still unpacking the loaded supplies late at night. This is the display fridge that is normally out of sight in the bar car's store room.

Last year (2008) we tried to feed the passengers as well as set up the kitchen and the bar at the same time and it was logistical foot-loops – even though the meal was a simple cold one with meats BBQ'd out on the platform.



BE08 – OK, NOW it's cold! It is approaching 2 am and although the drizzle has stopped, we have a lazy wind so called because it doesn't bother to go around you, just blowing right through you. The fact that the headlight is switched on for the 12AR is bad practice as one does not leave burning headlights on a standing locomotive facing the opposite direction of the running line. Luckily, one of the senior guys noticed and the errant headlamp was extinguished within a few minutes.



BE09 – Unloved, out on the gravel in the frigid darkness, my camera strap fluttering annoyingly around my tripod's head, I envy the sensible footplate crews enjoying the warm haven of the locomotive cabs. Note that the sliding windows are closed, which is a rare occurrence on a Reefsteamers locomotive! No curious passengers as visitors this year! Johann Breydenbach was the duty loco minder, but here, the trainees from both the locos were up front – as once a boiler is stabilized and the fire is banked, there's little really to do.

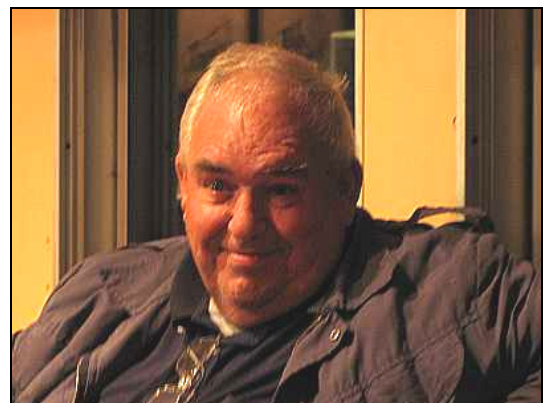


BE10 – It's now past 2am and the mercury is dropping along with the loco water levels. We've kept the generator set running to illuminate the stationary train. Last year, the train stood wheel high in weeds and the yard was totally overgrown. Our locomotives were struggling to grip the rails with the weeds getting snipped up and ground into a soapy, slippery mush under the wheels – much better this year.

I'm watching my back as I'm standing on no-mans land between the goods yard and the outer eastbound main line.



BE11 – Ghost train. A completely empty but still illuminated second generation refit Class 5M2 commuter set streaks by the deserted platform in the dead of the night. (They are easy to identify by having LED number boards instead of the old backlit panels, and have yellow sliding doors regardless of the background colour of the coach body.)



BE12 – It's 3am in the morning. The morning's footplate crew are gathered in the lounge car for their medical checks and the doctor's equipment is c-c-c-c-cold! James (Pictured) and William were the only passengers still awake to watch the crew take over and wait for the two electric locomotives to arrive to haul us away. James, the smartest of us all, decided not to step outside.



BE13 – One problem that bedevilled the crews this year was the lack of torches. Some members brought penlight torches and only two of the senior guys had flare lamps. My 4-cell LED MagLite saw much service in the evenings.

Fireman Mike Thiel lifts the pressed-sheet steel inspection cap on the 12AR's bogie bearing while Dawie Viljoen stands by with the red MH oil can. Those reflective jackets work well !

Trainee Train Manager, Dennis Edgar, with his famous multi-kg badged cap cloaked unrecognisably by a hoodie, looks on,

The two electric locomotives arrived an hour late at 4am.



BE14 – How to lose your arm in one 'swell foop.' Steam locomotives aren't designed with ergonomics in mind. Dawie has to reach right under the piston rod to get the oil can through the bogie wheel's hole and oil that 'box' bearing. That green oil tint shows this is one 'wet' engine – lots of oil, which is how things should be!

The 12AR has always had a tendency to run a bit hot at the front end – being intolerant of the slightest deficiency on the bearings and we always make sure the axle boxes are full.