



1). CHERRY FESTIVAL TRIP – PREPARATION – WED, 24 NOV 2010 :

A Cherry Festival train trip actually starts a day or two before the passengers board the train. The Reefsteamers depot often then resembles a termite hill that has just been roughly kicked open – people scurrying frantically to and fro with their last minute preparations. And some are so busy they don't even bother going home, but sleep at the depot overnight.

This year was a lot calmer as a lot of the work had been done the previous week and even earlier. There are no major repairs required on our four-strong fleet of running locomotives and nothing broke down a week or two in advance of the Cherry Chew-Chew. So the workshop staff were available to work on the Cherry train too.

These photos then primarily look at the locomotive preparation and a few movements that were required on Wednesday. During the previous week the bunks had been made up on the train and the electrical \ plumbing systems checked coach by coach. There were a lot of problems with the water pumps as expected, a few blocked drains and several faulty flush pedals on the toilets. This would also be the first run with a piggy-back water supply. The Nigel Coach, which currently has no functioning plumbing above the floor tiles, had a pump installed and commissioned – said pump pumping water across the gangway into the tank of the adjoining Power Van. If you're gonna have two coaches using one shower, you may as well have two coaches worth of water. Water consumption was quite high this year and it wasn't long before we had passengers, having discovered the staff shower, sneaking into our coaches. It was hard to be polite sometimes.

The only major crisis that we would have on the trip would be a lack of water. Our destination town, Ficksburg, had two municipal water pumps fail simultaneously and the town had little or no water pressure. Thus, the inherent weakness of steam traction was brought to the fore – an unslakable thirst for the wet stuff in a water-stressed country.

The grand old steam locomotives performed like absolute champs and definitely put the hauling electric units to shame. Not that the electrics are inherently inferior – but even the most well designed machine will run poorly if the maintenance is indifferent. The bean counters, of course, are totally incapable of estimating future losses when the up-front cost of maintenance is eliminated. In all, from the early preparation to the not-too-late return, it would prove to be a good trip.



LU01 – Front Stage.

All the rail-top action for any tour starts with lighting big induction-drawn coal fires and boiling literally thousands of liters of water. It can be a photogenic still-shot process. But here, the Hunslet Taylor diesel shunter has been awkwardly left parked out front and blocks the view of the 25NC No.3472 'Elize.' But at least the shunter's coupling rods are down – being the photographic preference!

The 25NC has been asleep in 15M workshop bay number 6 for a few weeks. The little diesel was coupled on to drag the 25NC's chimney 'stack' clear of the unventilated roof.

Many rhapsody about the aroma of coal smoke and the patterns and swirling mists it makes in the typically shafting sunlight of a loco depot. But in large quantities in enclosed spaces, it is unpleasant stuff to keep breathing, irritating the eyes and nasal passages. The sulphur discharged in the smoke combines with the moisture film coating the nasal membranes, trachea and the lungs, and forms acidic compounds which actually damage the tissues over time.



LU02 – Tripping on the trimming.

Saki (left) and Imile take the chunk-chucking honours as they 'trim' the coal in the massive tender of the Class 25NC. The characteristic cross braces make the job a particularly tiring one as you can't just slide the coal forward but often have to lift and heave.

The distribution of the coal visible to the right seems odd – it would have slidden downwards due to gravity and motion.

However, it has been deliberately placed there by these shovel-huskies to get the coal off the stoker slides. Those slides needed to be pushed towards the rear, one by one, to bring the open feed slot back to the very front.

A glamorous-sounding 'mechanical stoker' saves work for the fireman and allows a large locomotive's firebox to be designed that exceeds the sustained shoveling rate of one man. Unfortunately, 'mechanicals' require more work from the shed staff when the stoker trough cover slides of a partially-empty tender have to be reset.

**LU03 – Wet coal.**

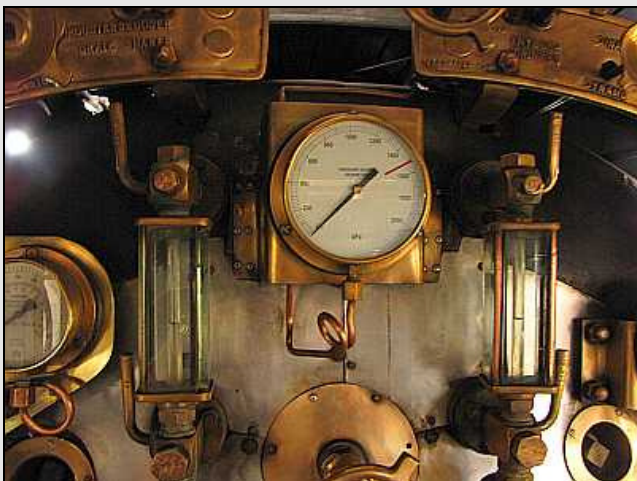
The coal in the Class 25NC's tender had been thoroughly wetted down before trimming, to reduce the dust caused by shoveling in an enclosed space. Perhaps un-intuitively, it also assists combustion as the water trapped in the pores of the burning coal turns to steam and drives out the volatile compounds. The steam itself assists in the process – forming 'wet gas', or Producer Gas, a concept which helped 'Soekie' the Class 26 dramatically increase fuel economy over her 25 class sisters.

The disadvantage is that of accelerated corrosion if the coal remains wet in the tender. (The sulphur leaches out and forms acid compounds.) It also increases the load on the mechanical stoker as well as being physically heavier to shovel. So you can breathe coal dust and sweat, or breathe clean air and sweat lots more. A powerful choice.

**LU04 – Accessorized.**

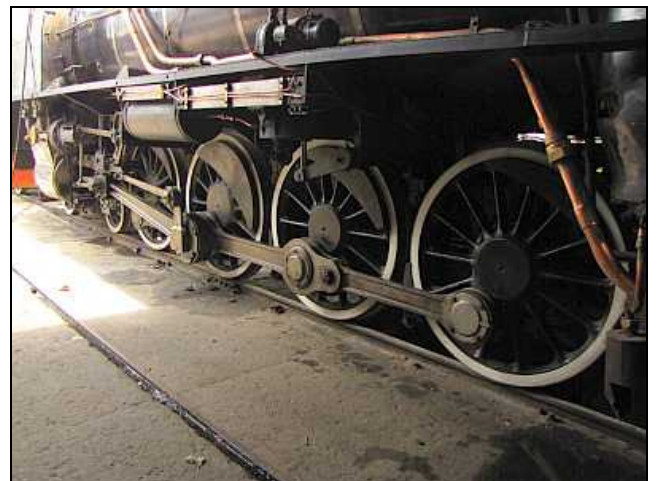
A steam locomotive's 'fire irons' need to be checked before each trip to ensure that none are missing. They also need to be checked that they are straight as sustained use in a hot fire can literally heat the steel red hot and soften the rod so that it bends. 'Irons' typically bend under sustained efforts to remove stubborn clinker. It isn't unusual for gloves and generous handfuls of cotton waste used as fireman's hand insulation to start smoking and charring.

The Class 25NC carries five irons as standard. Pictured here is the short pricker (left), the stoker hook (center) and the ash pan rake. Alongside the tender is the long pricker and the slice-bar, which looks a bit like a garden hoe. The stoker hook is intended to engage with the holes on the stoker slides rather than for cleaning fire – but can be useful for clearing between the vanes of a stoker table.

**LU05 – Start-Up.**

Flat zero. There isn't a trace of smile on the dial yet. The locomotive's fire had been lit two hours previously, but it takes 5-6 hours to bring this beast into steam. It is possible to steam a 25 class within 3 ½ to 4 hours with a fierce fire and draft, especially with an oil burner, but at the expense of thermal stress at the firebox and the rear tube plate.

The water level in the two column glasses can be easily seen. The water level here is a bit too high for lighting up – it is standard practice to drain the boiler down to a third before lighting. As the water heats up and expands within the enclosed boiler, the water level perks up to just under 'half-glass' anyway.

**LU06 – Low Maintenance.**

The robust coupling rods of the Class 25NC are equipped with roller bearings and don't require regular greasing for each run or during a particular run. However, they DO require occasional greasing and they take white grease applied with a grease gun instead of a chopper-pump.

These rods were not greased for this run, simply because they had been topped up for the previous year's Cherry Festival train and the locomotive had only run three times since then.

**LU07 – Philipp Phills Up.**

The mechanical lubricator is more intensive to prepare than the coupling rods however. The lines need to be primed for a start (about 300 tedious turns at the lubricator's manual-crank) and the main oil tank filled up.

Philipp Maurer, having just arrived from Switzerland two days earlier, happily takes the fill-er-up job on as his first job upon arrival at the depot. Those happen to be genuine pinstriped Swiss crew trousers that he's wearing. (Now with genuine Reefsteamers dirt.)

This is a dog of a job if the compounded steam oil in the green cans is stiff and cold, as this stuff was. But luckily, Philip had a decent funnel and could simply wedge the can into position rather than holding the heavy can aloft with increasingly shaky arms.

**LU08 – Burn-E Bottom.**

The Class 15F No.3046 'Janine' had been lit earlier that day at about 7:30am. The 25NC was lit up 2 hours later. The staggered start was to alleviate the problem we usually have when trying to draw the draft on two locomotives at the same time – the plant air compressor can't keep up. I remember struggling and cursing everyone from Robert Stephenson to Wardale during last year's Cherry Train when I couldn't get my fire to wake up.

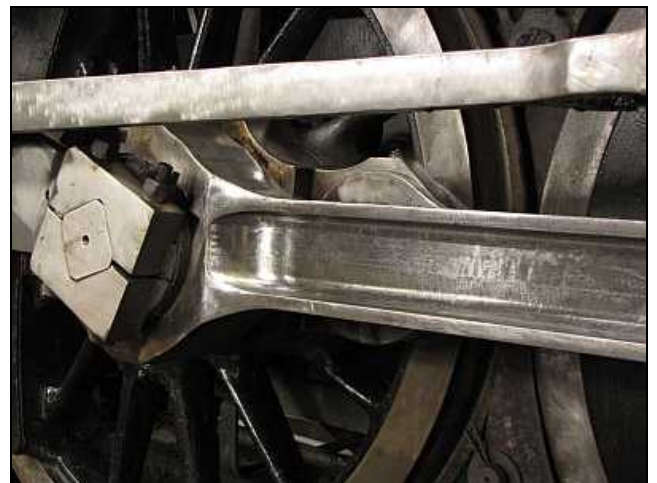
The staggered start also shows that you can, after all, teach an old 'Spoorie' new tricks.

This is a view of the ash pan towards the front of the firebox on the Class 15F and the shape of the ash chute can be clearly seen. The fire has burnt right through the coal. A loco fire is started between the center and the rear of the firebox, so this is a good sign that all is well.

**LU09 – Smoke Out!**

It's about noon and we're almost ready to run the 15F to the coal dock for some yummys. To get the final steam up, 70yr old plus Oom Attie chucks on the carbon with gusto and totally smokes out the clearstory roof of the old boiler house. The blower ring has been removed, but the boiler pressure isn't high enough yet to run the locomotive's own blower for a good enough draft to get the fire to burn cleanly within a reasonable amount of time.

In the foreground, Imile Wehmeyer takes a break from pushing gravel in the 25NC's tender and watches the action in a much cooler environment.

**LU10 – Bling.**

A seriously shiny coupling rod stands out against the black wheels within in the smoked out gloom of the old boiler house. The bare steel wheel rims, drive and the valve motion of the Class 15F got the full polish treatment.

With an initial wipe-down of paraffin, they stayed reasonably clean throughout the entire 920km journey.

**LU11 – Fish Paste.**

Results of prep work from the oil store. A matching red row of MH oil cans await loading alongside the Class 15F. MH is the oil that we use for general lubrication and for the oil cups. We do use a little bit of steam oil as well for general lube for sticking power on linkages exposed to steam and water, such as the bissell spring hangers.

Normally we take the loco oil in the S & B van during a long trip. But it is an inconvenient clod-hoppered hike for a crewman to fetch when we're out in the boonies (Free State = Boonie-Central) and also forms a fire risk being in the same enclosed space as not one but two diesel generator plants. This year, the locomotive tender cubby holes were cleaned out of orphaned tools, battered cans and dead grease sticks and they carried their own oil supplies.

**LU12 – Free Draft.**

Visible through the characteristic deflector door of a mechanical 'F', Janine's fire is now drafting freely with just a touch of the blower. You can clearly see how the combination of the side-wings and the curved shape of the open door form a downwards pointing air chute to force the incoming secondary air downwards to mix with the combustion gases just above the firebed, rather than taking a short-circuit upwards and forwards through the boiler.

Those side-wings make this a nasty firebox to fire by hand though and they have caused many a curled shovel lip.

Oom Attie had let the cab smoke-out sometime earlier – notice the ample sooty deposits on the pressure gauge visible to the left. (It is the lower of the stoker jet gauges.)

**LU13 – Retro Reflection.**

Steam locomotives are incurably incontinent. They piddle like sauced bar patrons trying to hit the urinal cakes with puckered foreskins, and they spray like randy tom cats. There are always puddles of water around a standing loco although to be fair to sweet Janine, this is more tender-overflow water than cylinder-drips.

We have received some tentatively critical comments about not using a graphite smokebox on 15F No.3046 'eninal.' However the black etching primer that we have adopted is holding up quite well between some hard work and then the rusty periods of standing idle. It does need good surface preparation for a long lasting job whereas you can just slop the graphite on. Eventually, all of our locomotives, except the Sandstone bruisers, will bare this black-faced look.

**LU14 – Tender doors.**

Neither the 15F or the 25NC had tenders full of coal. They'd been allowed to stand empty-ish although the stoker slides on the 15F had been reset 2 weeks previously. You can see the open slot for the coal intake right at the front.

The ex-Class 23 tender coal gates are interesting. The pivoting latches are made for easy access as well as easy hammering if they get jammed. (Usually with a 'shifter' or the drop grate lever.) The cleverly designed latch also automatically holds the doors open at ninety degrees. Here, the RHS door is latched while the latch of the LHS door is almost ready to drop into engagement.

The lower doors are hinged at the bottom and provide a coal gate with adjustable aperture even with the doors closed.

2). PREPARING THE COACHES**CP01 – Bog Base.**

Not the most exciting or presentable of coach supplies, but heaven help you if you forget the toilet paper. There are 192 rolls in this stack and we were well through this supply after four days! Luckily the spiciest item on the menu was a mild baboetie so the incidents of sudden runs for the 'runs' were hopefully minimized.

Last minute coach work was minimal this year as we managed to get most of it done over the previous two weeks. It was mainly a final check of the bedding, and loading up of supplies for the bar and the kitchen.

**CP02 – Catcher's Cap.**

Try moving the contents of a functioning hotel over 900km and you get an idea of some of the logistics. Here, Andrew and Alan (holding the cap) are busy collecting spare copper fittings for the coach plumbing. The coach plumbing is usually the most troublesome system on a long distance trip – but this year's hassles were confined to air locks and lack of priming. (High water consumption this year.)

No pipe repairs were required but King's Law guarantees that if no spare fittings were brought along, we'd be in need.

**CP03 – Limey?**

Alan Lawton trundles a barrow of hydrated building lime for storage in the power van. This stuff is used in the discharge bags for the toilets to physically absorb the urine and to help absorb bad smells in general. This job was forgotten last year and the coach ends got a bit whiffy after standing for two days – even with intact bags tied on.

This stiff heats up in use as the chemical reaction is exothermic – so the plastic discharge bags have to be robust enough to handle the extra heat.

Alan Lawton took on the unpopular and very unglamorous job of looking after the toilets (with a team) and plumbing and he was kept on his toes all weekend with water issues as well as keeping the coach ends civilized.

**CP04 – Up to capacity.**

Here's one for the Rail Safety Regulator. Startled-looking safety dude Coen Pretorius is caught 'pack-muled' to almost maximum capacity with bottles of hi-test booze. Actually, these are a set of donated limited-edition bottles for a raffle to be held on board the train during the trip.

The clear bottles in Coen's clenched hands are wrapped in BARBED WIRE – complete with proper sharp-cut points on the twisties, so you can see the reason for Coen's awkward, careful posture. Only an Afrikaner could come up with such a thing. (But you gotta love 'em anyway.)

This is 'mampoer' – which is the traditional Afrikaner equivalent of 'moonshine' and is a hi-test distillation of fermented fruit. It's low octane, high cetane stuff.

**CP05 – Waiting Train.**

The coaches stand patiently under a moody sky. As most of the work had been done ahead of time, there was little hustle n' bustle evident around here.

The second coach is the 'Nigel' coach – a slightly creaky wood paneled clearstory coach that was running as an extra vehicle. Because of cost savings ensued by doing our own catering and housekeeping with volunteers, we were able to offer discount tickets to non-rostered Reefsteamers members although the practice of previous years – people riding for free, was strictly curtailed.

Officially, the Nigel coach people were not rostered to eat in the dining car but in practice, people were relaxed about the various seatings and there was little congestion.

**CP05 – End of the van.**

We tend not to shunt our consist around during the week so the ex-Staff and Baggage van, now our (dual) generator and workshop coach, usually stands with a water tanker attached on this end. An unobstructed end view like this is rare. Notice the non-standard grilles in the rear gangway door and the radiator exhaust grilles on the right side. Someone has also neatly hung an end-of-train marker here too.

The tanker was left off for the shunting – to reduce the weight, and also to reduce the length as this extra long train is a bit unwieldy to handle.

**CP07 – Sharing the joy.**

Someone, probably George or Attie, is really rolling the Class 15F's mechanical stoker and is incidentally smoking out the algae floating in the water tower.

There is a beneficial side affect too of making sure the coach people don't forget that this is a coal hauled train. Luckily the coaches were upwind and too far away to end up with coal-scented bedding

**CP08 – Coen's Coeps.**

Coen Pretorius often gets some tee shirts or memorabilia made up and this year he bought a selection of photographically printed cups for sale at the bar. (Along with the now usual tee-shirts) Coen did this at his own expense and insisted that all proceeds go to the club rather than even taking the cost price for himself.

The memorabilia costs came to about R8500 – a generous gift from a man who has just gone on pension.

Andre van Dyk also organized a collection of standard navy blue Reefsteamers baseball caps which most of the rostered crew wore along with standard 'uniforms' of Reefsteamers shirts and blue denim jeans.

3). COALING THE LOCOMOTIVES :**MV01 – First move.**

The first steam-powered move of the entire Cherry Festival trip, the lively class 15F locomotive was shifted out under a murkily cloudy sky at just past noon. As she was already facing the right way, there would be no need for turning, just a simple backing run into the coal dock.

A phlegmatic Chris Saayman was at the regulator and George Hoddinott enthusiastically sitting at the stoker.

The pictured area is the most dangerous area of our depot in terms of pedestrian traffic mixing it up with the steel-wheeled variety, as the crew are 'blinkered' by those doors. The main yard walkway terminates here and you can just see the stairs descending to the 15M workshop to the right.

**MV02 – Upgrade.**

She's a corker of a porker is our Janine – and she eats like one too. She will henceforth be known as 'The Pig-asus' – flying along and oinking it up in equal measure. Actually she's not under stoking here – the loose coal from the standing fire is being lifted from the draft of climbing the slight upgrade and the stack cleared after just a few puffs.

The Class 25NC, lit two hours later than the 15F, was also able to move under her own power by now. But SAR steam locomotives have the dangerous characteristic of being able to go before they can stop. They'll move slowly and unloaded with just an anemic few hundred kPa of steam in the boiler but the vacuum brakes don't work properly until about 700kPa. So, she had a bit longer to go.

**MV03 – Woken Guard.**

The security guards get drowsy and complacent with not much gate traffic even on a Depot work day. But this uniformed fellow is wide awake, having just got a solid, cheeky nip from the recently repaired electric fence as he unlocked the train gates. He's now walking across to unlock the coal dock gates.

Notice the surface in the car park – it's a mixture of ashes and cinders. The stuff works quite well as a cheap road surface, providing good traction and compacts with use. It also provides a mild weed killing effect – the stray grass sprouting here isn't as widespread as it would normally be.

**MV04 – Scroungers.**

We've become a bit paranoid with security these days and keep an eye on any strangers we find wandering around the depot. But the three scruffy-lookin' African ladies pictured here are probably harmless. We often get poor people doing 'chicken-parade' around this area, scrounging for fallen bits of coal. (Especially in winter.)

Although the depot's fence is just to the right, next to the old forge house, we actually lease the entire land right up to the passenger main lines running from Germiston station. When the depot was operating, there used to be two tracks running along here.

**MV05 – Blow Blow Down Down.**

You don't see this too often at the depot, an exuberant fully-yanked double-blow down in progress. This particular action is a combination of bleeding off boiler pressure, and forcibly blowing out the mud and scale deposits from the vulnerable mud ring around the base of the firebox. Driver Chris is taking advantage of the open space on both sides to really give the Class 15F a double-bushman's hanky. There isn't even grass to be burnt off in strips - most of the footplate gangs, including myself, have flash-boiled a few strips of grass in our time.

The effect on the backhead gauges is a bit strange. You'd expect the boiler pressure to drop, being open to the atmosphere. But the boiler pressure initially remains fairly constant and it's the water level that drops. Putting in fresh water into the space that has been released lowers the boiler pressure – hence the 'unofficial' use of a blow down to stop the safety valves lifting.

**MV06 – Backing up.**

Backing up and looking good!

Not only does this locomotive show the classic steam machine's beauty of the function dictating the form – there isn't a single steam leak anywhere.

Even the recently opened blow downs are wisp-free.

A recently repaired steam leak on the injector steam-supply flange re-opened during the trip, providing a photogenic plume of steam up the fireman's steps. But for now it's all neatly buttoned up.

Notice the smoke in the background? That plume is coming from just behind the 15M workshops, where the Class 25NC No.3472 'Elize' is having her fire opened up and decked with coal for the final brew-up.

**MV07 – Docked.**

Saki Kekana, standing on the grab's operating platform, is signaling the locomotive into the docks. He's showing the 'close-to-couple' hand signal which is also used (technically incorrect) as a 'move very slow' to stop position. Signaling from the Yumbo grab isn't always practical as it's on the driver's blind side and the fireman sometimes needs to relay the signal.

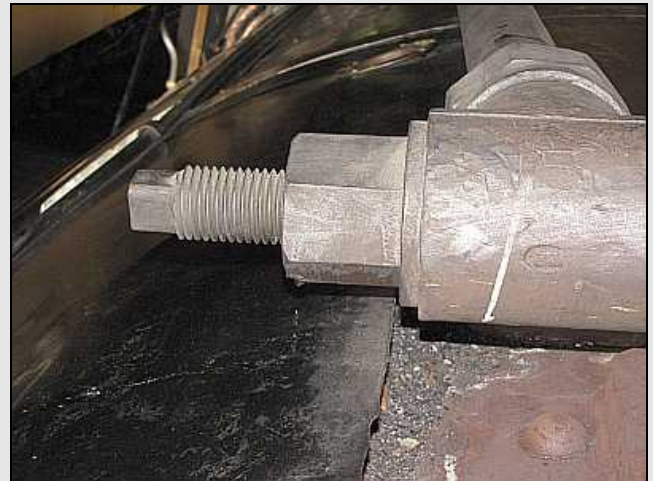
'Janine' is still missing her snuffler plate, the angled wind deflector that bridges the gap between the walkway steps and covers the two halves of the bolted smokebox saddle.

**MV08 – The black stuff.**

Coal! And lots of it. With the extra running required to boogie Sandstone's humps to Kommando Nek, we used over 50 tons of the stuff. However, this coal is of good quality which is always a major blessing on a long distance trip. It burnt down to a rather dense ash but clinkering was absolutely minimal.

**MV09 – Strain Relief.**

Imile and George (Right) have a chat as the Yumbo tucks into its gritty feast. Imile (Left) would spend most of the trip working with the coach staff, particularly as a bar man – but today he helped the locomotive boys. He looks rather comfortable in spite of the fact that he has a live 3-phase 380V cable wrapped around his shoulders. He's actually acting as the strain relief and will also pull the cable out of the way when the self-propelled Yumbo grab backs up.

**MV10 – The first leak.**

There are various signs in the pressurization of a cold locomotive boiler, starting with the gradual warming of the square-shanked washout plugs from the lower plugs upwards and on through to the steam leaks via the injector overflows.

I was taking pics of Philipp Maurer from above when I happened to be looking at this turret manifold header valve when the gland nut began to drip. It's a sign that the giant kettle upon which I was sitting with my tender buns was starting to pressurize and maybe it's time to get off there.

**MV11 – Pop goes the loco!**

The Class 25NC No.3472 porped-orf at about 1pm and really steamed out the rafters. We were hoping some of James Thomson's beloved pigeons, with feathers blown inside out, would be disgruntled enough to leave.

The unventilated 15M workshop roof is high enough to accept steam without immediate damage but letting safeties blow off under a roof for sustained periods is bad practice. Not onto does it press the roof panels up from underneath, for which they may not be designed, the condensed moisture settles into the nooks and crannies of the roof structures and encourages rotting or corrosion, as well as electrical problems should the electrics not be properly waterproof. On narrow roofs, like on a station platform, the dirty condensate can rain back down again.

Interestingly enough, the rafters in the 15M workshop roof are of old fashioned wood rather than steel.

**MV12 – Georgie injects.**

George Hoddinott runs the injectors to cap the 25NC's boiler with cooler water and to drop the safeties, restoring peace to the roof spaces. The 25NC's injectors are easy to operate as they're automatic – you don't have to throttle the water valve after opening the steam. But the backwards look is instinctive. (His right arm is on the steam valve.)

Georgie-boy is the depot puppy – bright eyed, wagging tail and VERY enthusiastic. He gets his wet coal-sniffin' nose in everywhere. As a university student, he has some flexibility in his schedule and has taken many opportunities to do fire-lighting and footplate riding during the days, whereas most 9-5 fellows would start by loco-minding.

George is learning lots and has become popular with the firemen for his work ethic. We five existing fireman who are ready to hustle at becoming drivers, and need youngsters to back them up behind the shovel.

**MV13 – Shying at the gate.**

Our plucky little mule upped and conked out at the gate, rumbling to a halt with the 25NC, George's recent injector work notwithstanding, blowing off again. But at least the steam locomotive was in the clear from under the roof.

They could have just steam-pushed Mr. Hunslet out of the way, but he'd eventually need to back up under his own power to get off the 25NC's front coupler. Although he only weighs 19 tons, he has plain axle bearings and the inherent drag of a fluid coupling clutch and wouldn't be that easy to bar back as say, a 40 ton roller bearing coach would be.

**MV14 – Diesel Diagnostics.**

Batman and Robin get to work on the latest case and it was lucky for Batman that the Gardner 6L engine was still fairly cold. It fired once or twice and then just turned over on the starter with no sign of life whatsoever.

Being a diesel, there's no ignition system to worry about so the checks are primarily fuel system checks. There aren't any sight glasses either. But the six slack priming levers on the fuel pump told the story. The fuel tank was down to sludge, fumes and fragments of dinosaur bones.

**MV15 – Fillerup.**

Saki humped a salvaged can of fermented dino juice from the Power Van away up in the top yard and gets it splashing into the empty tank. The fuel tank is mounted in the scuttle area, rather like that on an old fashioned high-bodied car. The tank isn't actually integrated unto the structure of the locomotive but actually stands on its own angle iron support frame under the hood.

The pump and the filter gear are gravity fed.

This much fuel would barely cover the bottom of the tank. However, this is an economical little machine and we'd have enough fuel to run up the 15M head shunt and later to put the GMAM Garratt away.

**MV16 – And we're off.**

After the in-line 'jerk' pump for the injector was manually primed, the little fellow started up right away. By this time, Attie had arrived to take of the 25NC's controls, so they uncoupled the Hunslet and let him run up to the 15M head shunt and back down alongside on his own.

With the exception of the controls for the sanding gear, this 1951 built locomotive is complete. Items such as the radiator, instrument panel, headlights, hydraulic drive, the brake wheel stand and the seats are, admittedly, not original, but you'd expect a few mods after 60 years.

We still have all six of the engine hood side doors. Two of the unventilated doors have been left removed to assist the cooling air flow for the engine. We also often disconnect and remove the battery to prevent self discharge while disused and also to prevent the battery from 'walking away.' Not having to remove the door makes it easier.

**MV17 – Evolution.**

Reminding one of the evolutionary theory that the furry little shrew-like mammals scampered out of the way of the big horny feet of the reptilian dinosaurs, here we see two ends of tractive development.

The 25NC was close to the zenith of steam development in South Africa in terms of features. (Most people consider them primarily in terms of size, which is incorrect – a big locomotive isn't necessarily more advanced.) The little diesel represents the start of the compressive-ignition path.

If this picture was taken 60 years ago by an SAR employee, who would have thought that the busy little scuttlers would take over from the confidently mighty steamers? (Although in South Africa, it was the electric technology that caused the knock-on mechanism of displacement with diesels in the middle and steam locomotives clinging on at the ragged end.)

**MV18 – Impressive.**

With nearly 200 tons coasting along on roller bearing axles and rods, there's hardly a puff of effort in evidence. I'm always fascinated by how the shape, layout and proportions of a steam locomotive tell a story.

The huge firebox, necessitating that unique grey-painted double axle bissell truck for support, is in evidence here. The rear course of the boiler, up to the first silver band centered to the tree, is the combustion chamber. The actual boiler is only four courses long and is shorter than that of a smaller 15F loco. As powerful as a 25 type is, there is relatively little steam reserve – as they were designed for heavy, fast haulage on relatively flat grades. However, because of the 2 to 3 ratio of combustion space vs. steam raising space, they raise steam quickly for a machine of that size. It makes the 25NC a somewhat skittish machine and it's easy to over-fire and end up fighting with the boiler by over-correcting with coal vs water.

**MV19 – Shutter Sniper.**

I had a photographic sniper at three o' clock to my position and it turned out to be Philipp Maurer lurking behind 'Kariega', one of the two derelict dining cars stored behind the workshops.

It is a bit unusual to see other cameras lurking around the depot. Most of the guys don't bother as cameras get dirty and damaged easily if used amidst workshop work. Thus, I got adopted to do most of the shop photography. It makes me unavailable for practical work – but at least we now have extensive photographic archives.

**MV20 – In the wings.**

After the Class 25NC had advanced into the head shunt and then backed off to the left and forwards past the 15M shops, Andrew brought the Hunslet Taylor out to wait patiently at the buffers. We would soon be bringing down Sandstone's GMAM Garratt from the back slot in the top shed and would use the little diesel to shove the big green machine up to the 15M shop.

Andrew had deliberately left some space at the front end as not to end up with a Hunslet sandwich should he end up between a 15F + GMAM combo on one end and unyielding buffers on the other.



MV21 – Turning.

After running up the head shunt and backing out past the workshops in the characteristic switchback move, the Class 25NC No.3472 'Elize' is now taking a jaunt on the tear-drop-shaped balloon track to be turned to face west.

On this track, the long wheel-base 25NC is a 'grunter.' That is, you can clearly hear the flanges of the driving wheels and the center axles of the triple axle bogies of the six-axle tender, rubbing up against the rail head with a characteristic staccato, grunting, creaking sound.



MV22 – Fireman Saki.

Fireman Saki Kekana takes the tiger tail for this turning run, under the instructions of driver Attie de Necker. Saki is one of five firemen that are getting close to becoming 'passed firemen', that is junior drivers.

Saki would, unfortunately, be rostered mainly for junior work during the trip. The reasoning is that he gets to do most of the firing and sometimes the driving for Reefsteamers during the week - and we'd use the Cherry Festival trip to give some of the other guys a chance to muck in.

4). MOVING THE GMAM :**GM01 – Stage lighting.**

After being turned and coaled, the Class 15F No.3046 'Janine' waits under a full head of steam over the reception track. The next job planned is to pull Sandstone's GMAM out from the back of the 'Top Shed' (Background) and bunt the beast down into the 15M workshop and out of the way. Then the 15F and 25NC, kept in steam overnight, could rest nose to tail under corrugated cover for what looked like being a rainy night. More convenient for the loco minder too.

The strange weather and lighting seen in the photograph often occurs during high-veldt summer afternoon. The hours between 3-6pm are the thunder storm hours. So we get to see thunderclouds massing up for a wet onslaught, and the lowering sun often peeks past, through or under the cloud bank.

**GM02 – Pushing In.**

The Class 25NC is now being fed her carbon crunchies at the coal docks and Attie de Necker is now free to signal this 15F shunting move. So, he has moved from the coal dock to the old boiler house. The 25NC's driver, Saki Kekana, left the cab and mounted the Yumbo grab to load the coal.

Footplate trainee George Hoddinott isn't yet experienced enough to handle a buffering of the titans. In fact, he dismounted a second or two after I took this picture – and sprinted to the coal docks to tend to the unmanned 25NC.

Note the tanker standing alone in the yard. A new Y-Valve has recently been fitted to the hydrant there, with a properly clamped wide bore-hose. The tankers used to have to be placed well within the coach tracks and filled with the small bore hose pipe used to fill the coach tanks. This one's a time saver – and saves water too as the old valve leaked.

**GM03 – Talk in.**

Oom Attie signals the 15F into coupling range.

Unofficially, one tries to indicate to the driver how close he is to couple by the closure distance between your hands. But there is no set standard. And situations like this have a lot of visual clutter which makes the moving hands hard to see. So the driver has to assume coupling speed early on – which makes maneuvers like these fairly slow.

**GM04 – In the wings.**

The Class 15F takes up the 180 ton plus load and starts the first of the switchback moves.

Watching the locomotive move is Andre van Dyk (Holding a clip board) and Alan Lawton.



GM05 – Back Track.

The GMAM was pulled out and around the back in the usual switch-back move. The building to the right is the old wheel turning shed. This section of track shows why the pocket-sized Hunslet wasn't used for this move – there is a steep downgrade to the level of the 15M shop. The Hunslet just doesn't have the weight to apply sufficient braking effort and would go down these rails with all four wheels locked with such a load.

The orange-painted drop-side gondola to the left is a derelict works wagon belonging to Transnet.



GM06 – At least the rails are still dry.

At the bottom of the slope, the two-choo tango has been brought down to safe speed with the luxury of vacuum brakes.

Driver Chris Saayman is doubly blind here as he's reversing and on a wrong-side curve too. What looks like one of two shunters is actually a photographer ambling along. We do not permit relaying of shunting hand signals via two shunters although we do allow relaying of hand-signal instructions via the fireman if the shunters are forced to stand on the blind (left) side of the locomotive. (For instance, if the locomotive is shunting with a wall or a building right alongside the right flank.)



GM07 – In the pocket.

The 'F' has moved off back uphill and they have left the GMAM 'in the pocket' at the start of the head shunt. The crews didn't directly hook up to the diesel. Said little green critter is actually reversing to couple– you can just see the roofline appearing from around the grassy embankment.

On the sharply curved track, it would be easier to move the diesel shunter back and forth if the couplers didn't engage properly, rather than trying to do fine moves with the 15F.

In the foreground is Philipp Maurer walking briskly to place himself for a flank shot over the next few minutes.

As can be seen by the dull railheads, this trackage doesn't get used that much as we don't usually move machines from bay to bay – only for roster swap outs, repairs and commissioning.



GM08 – Big n' Small.

There is a slight hump just before the ladder points and it was touch and go if the little shunter would be able to get the slightly larger GMAM on the easy side of the incline.

They made it and the final move was made with little trauma.

The hissing, sucking sound of four cold steam cylinders being driven by the wheels is unique to a Garratt. One easily overlooked characteristic of the GAMA is that the pistons drive the third axle from the engine unit ends instead of the second axle as on most other SAR 4-driver axle locomotives. It makes for longer, heavier connecting rods but reduces the vertical forces on the side bars as well as the displacement required on the eccentric crank's roller bearing.



GM09 – King Koncentrates.

A gruff-looking Engineering Manager Andrew King looks back for hand signals during the backup move. He's one of those people who wastes nothing and that ragged cap looks overdue for retirement – but certainly suits the moment!

If Andrew gets an adverse hand signal, he's gonna have to hustle. Although the Hunslet Taylor's throttle and the gear lever are accessible from both sides of the cab, the brake wheel stand is mounted on the left side.



GM10 – Blunt front.

They've made it through the gates without snagging parts off the engines or decapitating someone. (The barbed wire coils on the gate tops are actually quite hazardous for unsuspecting crews as it is at face height if one rides the footplate and pokes your head out of the window.) Attie is now standing off to the left and, unseen in the depths of the 15M shop, Peter Labuscagne is directing the rearwards shunt.

Some often missed details on the green critter's front end include the hole and matching stirrup for a starting crank handle. Notice the design fault? The starting crank handle would have to be long enough to clear the coupler.

There are also two rows of un-used holes in line with the railhead. It looks as if this engine once ran with rail horns. (Shaped bars designed to knock solid objects off the rails before the wheels go over them.)



GM11 – Close stop.

The GMAM Garratt is so long that she almost comes right up to the rail stops before the opposite end is (almost) under the roof. Actually, this is a pretty mild stop – I've seen this mighty machine parked with the cow-paster literally an inch or two away from the triangular stops.

"Dear Mr. Mole, it is with regret that we have to inform you that your GMAM No.4079 got slightly bent during..."

Well, it hasn't happened yet!



GM12 – Turning in.

...for another snooze. The GMAM is at rest again until the next special run. She's also to have attention to a mechanical lubricator as one of the steam chests is running a bit dry. By the time you read this, one of the pumps will have been removed.

In the background is another Sandstone loco, Sandstone Estate's Class DE2 ex-Rhodesian Railways Diesel – also in long term storage and patiently waiting for restoration once a suitable business model for its re-activation materializes.

5). PUTTING THE TOYS AWAY :**EJ01 – Grease up.**

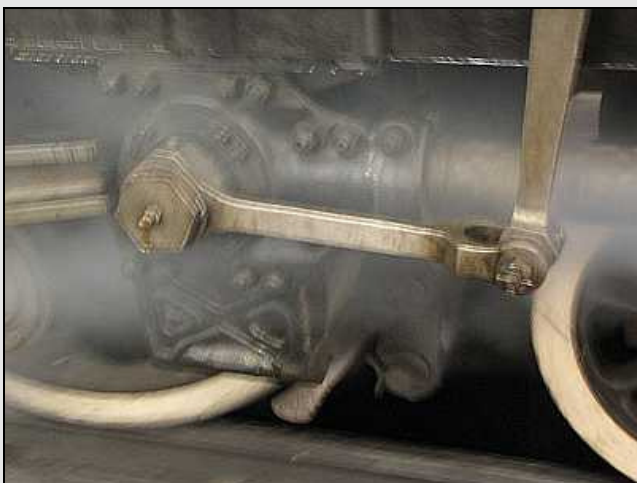
While the GMAM is being put to bed, driver Chistoffel Saayman takes advantage of the idle time and greases around the 15F No.3046 before putting her in the back slot of the shed for the night.

The general grease points, such as the suspension gear, doesn't really benefit much from the locomotive being 'warmed up' – that 'rule' tend to apply to the valve motion, wheel centers and coupling rods.

**EJ02 – Last move.**

Saki, finished with the coaling, signals the 15F into the recently vacated back slot of the old boiler house. He's breaking the rules though as a close-to-couple signal should always be done with the loco moving towards the shunter – otherwise the driver needs to move his head.

Class 15F 'Janine' would head the train tomorrow so she's actually at the wrong end of this shed – but there are a few coach and tanker maneuvers to be conducted tomorrow – so this placement isn't at all critical.

**EJ03 – Steamed Steel.**

The RHS union link stands out against the steam-blurred background as the recently coaled 25NC eases her way into the front slot of the shed.

**EJ04 – Steamy Christmas.**

Have an oily Christmas everyone!

The loaded oil cans and a hard-won armful of tightly woven cotton waste accidently makes a snow capped Christmas themed montage in the traditional festive colours – green, red and white.



[EJ05 – Chez de loco.](#)

In the elegant surroundings of the locomotive cab, served on a sumptuously spread table and on fine china, lunch is served. Today's menu is coal-fired boerewors and tomato stew and judging by the speed that it went down, it was obviously all right!

Georgie even went for second helpings and survived.

It isn't as difficult to clean a locomotive's coal shovel as one may think – stubborn cases can be boiled clean with water from the drinking bottle. It can be a bit awkward if oil got onto the shovel though.

And of course – it's better to know if a footplate crew member has recently crapped on the shovel or not – and tossed the flops into the built in incinerator. There's a reason why I have my own dedicated cooking shovel!



[EJ06 – Chow down](#)

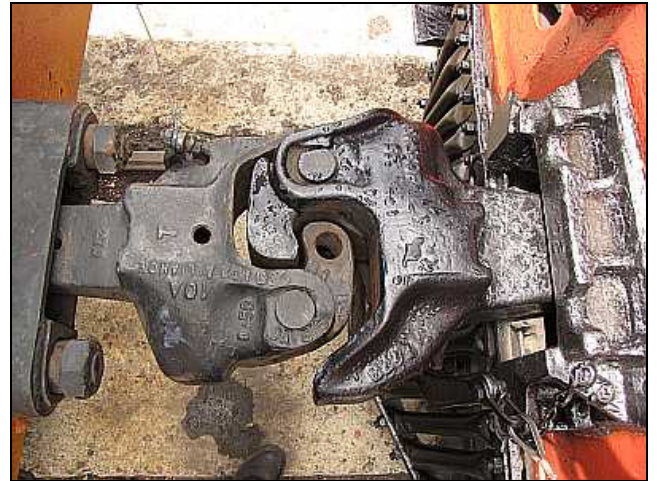
Philipp doesn't mind the culinary risk and gets to work on that sauce-drippin' bad boy with gusto. It makes a welcome change from nibbling on Swiss chocolates and emmentaler cheese in the glassed in confines of an OBB locomotive cab.

6). MISC :**M01 – Down the hatch.**

Here are the 25NC's upper back-head fittings as seen through the open roof hatch in the cab roof.

Something that I learnt from Johann Breydenbach during a weary, wet, wait at Kroonstad was to be wary of cold rain water getting through the hatch and impinging on the hot glass of the water column tubes – which can then shatter.

Hmmm. Looks as if I've been lucky thus far, as up to now, I've hardly ever bothered to close a locomotive's roof hatch during light to medium rain.

**M02 – Firm grip.**

The couplers on the Hunslet Taylor Shunter (Left) are known as 'Alliance Couplers' and are actually stamped as such. (A point that I didn't notice until looking at the photo.)

They have a horizontal notch in the knuckle, which intersects with the vertical hole that you can see. They can readily accept a coupler bar, a link or even a cable sling into the knuckle's slot and have it pinned into place with a pin dropped into the hole. Thus, they are compatible with the older link and pin coupling system.

**M03 – Frantic phone round.**

It is little wonder the railways have lost traffic to the roads as they don't give a fig for customer service. It's not necessarily head office but incompetent or lazy dispatchers who don't pick up on an unusually routed train – being used to long bulk freights. It is dangerous for a small operator like us to assume that all the 'cabins' are aware of our train even if the YQ was formally issued well before hand.

Attie de Necker (Right) had been phoning all morning to confirm our routes and came back with mixed results. He was getting increasingly frantic. Here, Coen Pretorius is doing the bull terrier bit, worrying away at the sections one by one to ensure we have a clear route. We encountered one unmanned cabin on the way home – closed for lunch! ☺ and waited patiently at the semaphore signals.

**M04 – Furry phlegmatics.**

In amongst the banging and chuffing of heavy locomotives and vehicles, accompanied by the shriek of lifted safety valves and the sudden toot of whistles, most dogs would be barking frantically with their tails quivering between their legs or running for the horizon in high speed mode four x paw drive.

Well accustomed to the steam machines and the boisterous nut-cases that maintain and operate them, the Reefsteamers gravel hounds are barely interested enough to open a sleepy eye and lazily cock an ear before heaving a bored sigh and going back to sl ... zzzzzz!



M05 – Friendly greeting.

This would be nice. Pity most of them can't read....

In South Africa, the liberalized law favours the criminal – you are expected to offer him a cup of tea and a sandwich and politely enquire as to what weapon he intends to use before defending yourself. And the injured criminal gets private (albeit handcuffed) medical care and air-lifted out with a chopper while you have to sort yourself out – driving yourself to the hospital and hoping the gunshot wounds don't bleed too much into the upholstery.

This sign is from the SAR era days though.



M06 – Yumbo at rest.

The coal-dock's 'Yumbo' grab is an interesting machine in its own right, being a self propelled platform. The rear wheels are driven by hydraulic motors.

This machine was originally diesel powered. The engine was removed and replaced with the electric motor. Apart from the vulnerability of the tether cable to theft, this arrangement has been very reliable. No engine oil to check, no battery to go flat, no radiator and cooling system, etc. The removed diesel engine ended up powering our generator van and derives the benefit of running under cover.



M07 – Andre leads.

Andre (right) discusses the complicated crew roster with Dawie. The roster was complicated by the fact that we had two extra equipment-moving runs planned on Saturday, which is normally a day off for the crews. Andre did well but had to revise his plans any way.

In spite of last minute changes there were no problems with the crew rostering except for Saturday night when they found themselves short of loco minders. Some of the original rostered people had worked an overly long shift all day because of the need to transport water from Sandstone Estates. But the issue was soon smoothed over and the big beasts had company for their last night at Ficksburg.

As can be seen by his shirt, Andre is a Sharks (KZN Rugby team) supporter ... but he doesn't know any better. So the local Blou Bulle just leave him alone and feel sorry for him.



M08 – Cropping.

This leafy, locomotive eating monster was cropped back before the 25NC backed in. The branches were getting long enough to gouge the duco and whipping unwary crew members across the mush.

It was probably academic as both our locomotives got whipped by errant foliage out there on the main line. The drivers just look on and smile but the fireman needs to watch for evil trees before sticking his head, or in my case, a camera, out the window.



This Depot Report was compiled by Lee D. Gates on behalf of Reefsteamers
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