

## Introduction :

In amongst our slow, but steadily more visible and consistent program of Depot Improvements and Upgrades, the long under-utilized Reefsteamers Water Tank was given a good service and has been put back into operation. Along with a growing list of improvements such as stores, lighting, new window glass, paint work and many more, we now have a properly functional water tower! It actually was more or less operational, but was leaking badly from the swiveling delivery pipe and the valves. Thus, we left the tank standing high, dry and empty. As our Depot is supplied with potable water from the council mains, the financial waste of constantly running water 24/7 can be substantial. But there are two more subtle problems. One is the continued degrading of the tank's exterior metal work through constantly being wet with waste water. The other, more serious problem, would be the formation of pockets and "blow holes" in the soft soil around the foundations, from the constant dripping from a high level. It would take a lot of dripping to weaken the adjacent track, (but it is possible) but the damp mud and the pot holes would be trip hazards for train crews and shunting staff.

Fortunately, the structure of the water tower is quite sound, and the tubular column much easier to inspect and paint than an open frame. Following is a list of the many repairs and improvements that were made to the water tower.

- 1). The tank's interior was thoroughly cleaned out, rust proofed and water proofed.
- 2). A new 2 inch diameter float operated water valve was fitted. The depot water mains runs at 1400KPa as it is also rated for fire hydrant service - so we needed a good high-rated valve!
- 3). The water valve's float arm was adjusted (twice) to set the optimum water level under the built in overflow.
- 4). The exterior surfaces were de-scaled. The bare metal areas were undercoated and then the entire tank and its support column were painted in Battleship Grey enamel)
- 5). The tank's concrete footing was painted in clearly visible white.
- 6). The leaking swiveling elbow was removed and the delivery pipe was mounted directly onto the tank drum. It now stands permanently fixed extended over the center-line of the track.
- 7). The 6 inch delivery valve was serviced.
- 8). A delivery "sock" is to be made up as the tank never had one.  
The tank has a 6 inch delivery outlet which is lead into a cone.
- 9). An extra pipe line has been run from the tank to the Top Shed for high pressure, high volume water feed for boiler washouts, boiler filling for hydraulic testing, etc.  
(Our water mains pressure is quite variable and often inadequate for high pressure jobs.)

We have actually used the water tower previously on various occasions and sometimes as emergency storage because of our weak water main. However, on this Saturday, it was decided to give the newly refurbished tower a test and top up our Class 25NC No.3472 Elize in proper formal railway style! During the procedure, the delivery nozzle had to be cut back and the float arm was adjusted, but the tank did the job.

We are quite pleased, not only from the authenticity of the operation (clearly visible from the outside of our Depot bonus!) but also in the time saved in filling up the loco tender's tank. Usually the loco minders and fire lighters run a garden hose through the water hatch and leave it running all day (or for several hours at night). But if someone forgets, and it is only noticed when the crew take over, there is no way one can top up quickly with a hose - but the 20 000 litre capacity water tower can do the job admirably. It also provides a water backup for the not-infrequent instances that we have no water at the Depot, usually because the non-SABS specs UPVC water main has burst and is under repair again.

We did this shunting move during the burnt out shank of a long hot depot day. We were in a playful and celebratory mood as we often are at the end of the day with a beautiful locomotive with some problems resolved and in healthy steam. We decided to try out the water tower and were looking forward to replicating the procedure of filling up a locomotive from a proper water tower, which is very rare in post-steam South Africa where the steam-era infrastructure has been scrapped or is just plain derelict. Unfortunately, our Bar Coach had been untidily left right opposite the tank during the afternoon's shunting. However, when we Reefsteamers were operating our own locomotive in our own yard and about to tank up at our own water tower, we were able to line things up to our own preference too. Being active at the Depot does have its privileges

Thus, follows a photo sequence of what was once a mundane railway task but has since become something special to see. Enjoy some rather wet heritage.

Photo credits (LG) = Lee Gates (PA) = Patrick Ackerman



FP01 - Ironically, this photo was taken just over a year previously on this day, on the same locomotive (25NC) with Patrick Ackerman wrestling with the original hinged pipe. (6 Oct. 2007) You can clearly see the original swinging pipe arrangement and the bad water leakage from around the elbow. What you don't see is the leaking from the delivery valve as well.

FP02 - Just like an over grown toilet cistern, the water tower uses a spherical float and a valve. The valve is brand new and you can see that the water pipes have been sealed from when they were taken off to remove the original. This water level was too high, especially with an undamped float and an open discharge, the rippling water causing the level to be higher than it should be in service. The arm was adjusted again before filling up the 25NC tender.



FP03 - From a perch up aloft on the Reefsteamers' birdbath, we have a somewhat unusual view of the 8 track Running Shed. The diagonal track off to the left is the crossover that leads to the forge house track, the yard back exit and also backs into the reception track. The new formal club house, converted from a derelict ablation block, is clearly visible at the right center. (LG)



FP04 - This was primarily an Edward and Sakkie project. Here they are manually cutting the threads for the extra water line to be routed from the tower as a high pressure high volume feed for boiler washouts. The operating forge in the background, was being used to straighten and anneal the bent injector piping on the Class 25NC. (LG)



FP05 - Our 25NC "Elize" looks a picture as she backs off from the crossover and rumbles slowly past the water tower. The camera obstructing coach can be seen on the No.2 road just to the left. (PA)



FP06 - The traditional weekly Dawie funny pic. Here a confident Mr. Viljoen flexes his massive steel-cord muscles as he hurries the free wheeling roller bearing equipped 25NC locomotive along, (PA)



FP07 - The first attempt at using the water tower is interrupted when the tank's water supply is switched off and the ball cock is removed to bend the float arm downwards. Consuming 18 000 to 33 000 liters of water at a go in a tender or a water tank car is costly enough without water running to waste all day. The water level was slightly too high and the tank was set to overflowing when the float started bouncing.

Unfortunately for the photography, the Bar Coach, which had been shunted out of the following day's train, sits rather untidily on Depot Road No.2 and totally blocks our point of view. (LG)

Memo to shunters Lex Wehmeyer, Tony King, Attie de Necker, Sakkie Kekana and Piet Steenkamp - No Parking in front of the Water Tower!



FP08 - Some of the Reefsteamers have commented on why I always bring a somewhat bulky sports bag in on my Depot Saturdays. It's because I always bring in an extra set of dry clothes and shoes, several sets of socks and some spare underwear for surprise soaking situations just like this.

A stoically standing Andrew King receives a H2O marinade as the choked water stream squirts sideways and he ponders the solution. As you can see, the valve lever is only halfway along its quadrant. (LG)



FP09 - Dr. Dawie performs the water tower's circumcision with much tongue-out concentration as he wields the delicately abrasive surgical instrument.

Getting electrical power out to the tender deck was a challenge as all the Top Shed's windows are welded shut. We ended up using yard power after resetting a breaker. I was the cable strain relief while Andrew King held the electrical plug and coupling away from the very low draining and flooded tender deck. Honestly, hadn't the old railway engineers ever heard of decent sized drain holes? (LG)



FP10 - Feel the pain! The truncated pipe came out fairly neatly and there is still enough of the cone left for us to put a drop bag on in the future. Excepting the plinthed A-Class, all of our tenders have centralized water hatches, so it isn't really necessary.

The newly serviced delivery valve seals great - there were only four water drops visible in the original photo. Notice the valve quadrant with the sector of notches to latch the handle in the desired position. (LG)



FP11 - The lowering sun is kind to any steam locomotive but especially to a beauty such as our 25NC "Elize". She catches a face full of golden sunlight as she has just backed down the No.1 road alongside the Top Shed and is now trundling forward into the No.2 road to pick up the stray Bar Coach. Yes, we Reefsteamers do have the special privilege of playing trains if we want to, and here, setting up an alignment for a photo sequence on request. (LG)



FP12 - Having just coupled to the coach, the Class 25NC No.3472 "Elize"; pauses with her rods down while the fireman checks the blowing gland on the rear of the power-reverser's actuator cylinder.

The newly rebuilt, re-bushed and line-bored Reverser's D-valve chamber, though, is a steam tight as you could wish for - courtesy of James Thomson and Patrick Ackerman. (LG)



FP13 - The mighty locomotive hardly feels the weight of the single 40 ton coach as the shunt move pushes over the newly concrete sleepered track. The fireman is nervously running the injector for the first time of this shunt and after a blown gasket was replaced in the outer delivery pipe flange. He'd also fitted a proper square shank to the water valve and extended an old injector water valve handle and shaft to suit - so now the originally loose fitting valve truly does open and close fully through the 90 degree operating arc of the valve handle. (LG).



FP14 - Well into the sunset years of steam, 16 years after steam operations officially ceased at the Germiston Steam Locomotive Depot, the old cantilevered running shed roof still emits clouds of evocative coal smoke. Steam is still alive here.

I visited this shed a few times in 1991 - 1992, not knowing they would be the last few years of steam, and little dreaming I'd be back there 16 years later. (LG)



FP15 - As she rolls back after putting the coach properly away under the cover of the old running shed, a loafing "Elize" shows the V-shaped exhaust that is characteristic of the Class 25NC. (LG)



FP16 - A contented Michael Thiel is quite happy to put coccyx to the still-warm rail head and with heels to the sand, he takes low angle animated and still pics of the action over by the water tower. (LG)



FP17 - Michael's coccyx wasn't the only item on the rail. Dawie "Swak Hart" Viljoen kindly provided me with two 5 cent coins to see just how flat we could roll them with all the shunting moves. (LG)



FP18 - Depressed Currency. Our Class 25NC, with her Class 23 Tender, makes quite an effective rolling stamp mill - these are those 5 cent coins after three passes. The Chief Engineer wasn't too happy though, semi-audibly grumping something about the coins damaging his delicate wheels. (LG)



FP19 - And this is what Michael Thiel was watching. With Class 25NC No.3472 "Elize" rolling gently into her iron stage for the water tower themed photo call, isn't she a picture of the harmony of form, function, and design with little added that is unnecessary? What is unique about this grand old engine's appearance is the subtlety of the paintwork - no edging on the smoke deflectors or contrasting paint on the walkway edges, for instance - just plain black. But look at the evidence of care and pride from the years, the copper pipe cow catcher, the stainless steel sheathing on the cylinders, the wing badges on the smoke deflectors, the front end brass, the cap plates on the fire box and the cover plates on the reverser's cylinders - oh yes, she's mastered the subtle look al right! (PA)



FP20 - At last, time for a drink in traditional railway fashion, endless gallons of cool clear water just cascading down the dark, hungry throat of the water chute. Patrick managed to catch the sun's good bye kiss on the tender sides and the engine, quite a feat when the combination is actually slightly curved. Notice how high and symmetrically the coal is piled up in the tender, "Koaling for Kimberly" as we call it. It looks like the coaling crew couldn't resist the opportunity to show off a bit! (PA)



FP21 - A cool drink in the evening at the end of a long piston-pushing day. It does sound appealing, but in the steam world, the locomotive gets to drink first! This definitely beats messing around with hose pipes and fire hydrants! (LG)



FP22 - The water stream is running great with the cut down nozzle and on a still day like this, it hardly needs a sock. But on windy days, the water stream is surprisingly easily deflected. Not much really needs to be said between Dawie (Left) and Shaun (Right) as they are mesmerized while watching the water tumbling in. (PA)



FP23 - You definitely get a sense of potential driving power and businesslike purpose in the stance of this machine, even while she is standing still and quiescent next to the shed that she calls home. (LG)



FP24 - This was one last shot at the water tower action, this time from standing on top of GMAM Lyndie Lou's water canteen. It is always startling to see that the "medium gauge" loco is actually higher than the workshop side-roof. The Class 25 series are the largest conventional (rigid single frame) 3ft 6in locomotives in the world and we have THREE of the 25NC type resident at the Depot! The other two are basically complete, including the usually missing brass work and copper but this one is, admittedly, the only one currently operating. We hope to get No.3488 "Enchantress" back in steam soon. (LG)



FP25 - It is way too easy to get "glint shots" of water tankers as their curved surface catches the low light at any angle. But it is rare at Reefsteamers to catch two tankers "glinting" side-by-side and not casting shadows on each other. (LG)



FP26 - Barely visible against the backlit running shed, and standing amongst the brass-topped rails, our Master Machinist James Thomson is watching the action. Sitting on the grass next to the new club house was an awkward looking Aidan McCarthy, who was sans his camera and thus sitting quietly on the sidelines. (LG)



FP27 - The Reefsteamers Cenotaph. In the very last light of the summer day, the low sun is at the just right angle to illuminate ALL the following day's coaches at rest in the old Running Shed. They had already been cleaned, their water tanks filled, the return trip water tank car attached and filled and the generator set made ready. The completed paper work is ready in the clubhouse. (LG)



FP28 - I couldn't resist a snap of a reclining Dawie (front) and Patrick (Rear) just before I flop down to join them. It is surprising how comfy the 3ft 6in irons can be if you're about 6 foot tall, tired after a long day at the depot and need a place to recline. With one engine in steam and it happens to be right in front of you, this is quite safe! (LG)



FP29 - Now who could this be? The trademark camera pouch on the hip just might be a clue. As I was taking high level shots from on top of the green "Lyndie Lou" water tank car, Patrick sneakily took some pics of me taking pictures of him. So it is with this backlit wave I end this photo essay and trust that you enjoyed our little water tower caper and some views of how we sometimes relax and enjoy our own locomotives at the end of a hard working depot day. (PA)