

1). 7 JUNE 2014 - TRACK INSPECTION AND FIRING:



P01 - Four of the Depot Stalwarts gather for some sunshine before going into a winter-cold clubhouse for our first meeting for the 2104 Depot Open Day. There within, tasks were delegated and chilled brains cudgelled for new ideas.



P02 - Gordon and Shaun are discussing the coming repairs to the turning balloon. The sleepers are rotten in several places, the track has a few kinks and many of the fittings and bolts for the check rail (inner rail) have been stolen.



P03 - We fire the depot grounds once a year to keep the overgrowth down. The staff had been deliberately cutting strategic fire breaks over the previous few weeks. Grass firing also eliminates the hiding places that metal thieves frequently use to away hide from our security patrols.



P04 - We also fired the grass around the head shunt. The track is poorly designed, being on curved track. The long grass of late summer can be hazardous for the shunter on the ground as it hides him from the view of the locomotive driver.



P05 - The grass behind the diesel tank compound was also fired. It wasn't long before the acrid smell of scorched pumpkin permeated the air. Further along the embankment we had a strand of 'feral' pumpkin plants growing from seeds that had passed through human digestive tracts. Talk about a special blend!



P06 - A Bad Bennett is a happy pyromaniac! This is the earlier washout area with just a few railed pits and a weed-grown concrete slab remaining. One of our dreams is to fill the pits in, screed the concrete level and to use this as a model live steam station and service facility serving a track running inside the turning balloon.

2). 31ST MAY 2014 – CLEANING OUT THE TOP SHED:



P07 - On May 31, the opportunity was taken to get the coal handling wagon into the unoccupied east end of the 'Top Shed' while the 15F locomotive was out on a run. (The more usual West-end is blocked with the jacked-up 12AR.) We would be using the grab bucket to hoist away junk.



P08 - Just in time, the steam nutz noticed that the grab's boom was facing the wrong way. As there isn't room in the shed to swing it around, it was done outside. This section of obsolete track was released for use in Christmas Season 2012 by extending the Eastern Yard fences and gates.



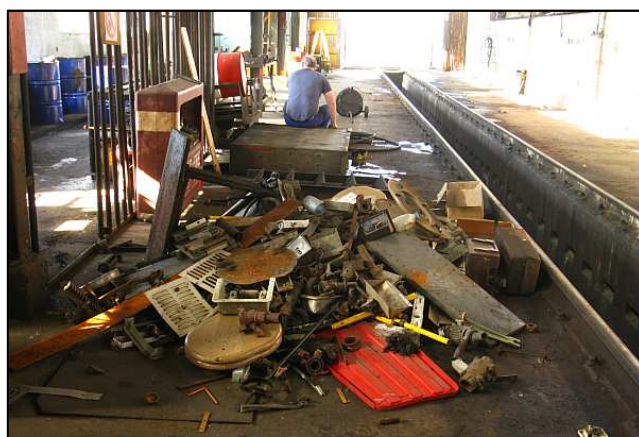
P09 - The first real bite of winter still had yet a week to arrive, so it was a pleasantly warm autumn afternoon to muck around with our big diesel-powered toys and wagons.



P10 - While we were shunting, the last few coaches of the Shongololo Express passed by on their short Journey to their new home at Boksburg East station – goods shed.



P11 - We are adopting a five-year rule. If an item hasn't been used within FIVE years and it isn't a rare spare part or critical tool/machine, it is disposed of – like these odd-sock grease dispensers. We are constantly fighting the insidious growth of just 'plain crap' lying around at the big ol' depot.



P12 - Aidan McCarthy and I had just manually shifted this entire pile of assorted loose junk to this location to be in reach of the boom. Tossing the individual items over was energetic, brainless fun – and Aidan now takes a quick breather to await the arrival of 'Andrew' the Hunslet.



P13 - This is about the fourth load. We could have dropped the sides of the bunker and tossed everything in – but why bother ... as we had some heavier stuff to hoist over the high sides anyway. (The checker plate scuttle boards above the DZ-style drop-doors are not removable.)



P14 - The hydraulic pump pack is being hoisted out. Rather than scrapping, this unit was being relocated into the 15M shop for repairs. The motor has been damaged by water ingress from the leaky roof. (We use this machine to test the integrity of newly repaired superheater elements.)



P15 - The high sides made lifting the bigger items more awkward as we couldn't get enough height in the boom under the roof. There were some near misses with the lights too. For this move, the train had to be shifted gently for an extra last few inches clearance below the roof truss.

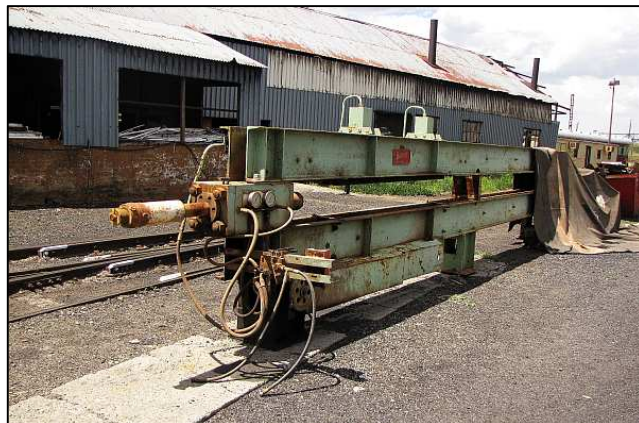


P16 - With the gripping of incompressible objects in the grab, the hydraulics took some strain and one of the hoses burst. It was the hose to close the grab. Alan quickly couples the hoses together to form a bypass loop and the clamshell would remain open for the rest of the day.

3). 24 MAY 2014 – MOVING THE SANRASM TUBER SWAGER:



P17 - Moving the ex-SANRASM Tube Swager required that the 15M Workshop Bay No.8 would have to be cleared – which meant that Steam Crane No.96 'Shosholoza' had to be pulled out of bed. 'Andrew' the Hunslet had run out of diesel at this point – which was a good excuse for tea time!



P18 - Here is the rescued Tube Swager in its entirety. It is a simple machine. The hydraulic ram forces a mandrel into the ends of an annealed tube to flare it out. The two rams on top push a Vee-clamp down to hold the tube in place. The brace in the middle is movable and acts as a backstop.

TUBE & PIPE SWAGING



1-1/2" Sch. 40 Pipe

P19 - Here is a swaged pipe. The tube swager is generally used to open up a tube as shown to the left. Reefsteamers avoids swaging boiler tubes if we can – but it is a common industrial practice on static boilers and not many people do it in bulk. We can, once we get the machine running. '\$\$\$!'



P20 - This is the sun-spotted No.8 bay. Because of the long, thin shape of the Tube Swager – we need a long thin area with both side and end access. The Tube Swager is one of three commercially-orientated projects we have in mind to earn revenue via the use of the workshop facilities.



P21 - The pushing move was taken VERY carefully due to the double-stacked bogies being shoved by the crane. These are salvaged tender bogies fitted with roller bearings. They are destined for the upgrading Class 15CA No.2056's tender, which still has plain bearing bogies.



P22 - Belting along at a kidney-swooping, rod-spinning, flange-floating 15kph, driver Smudge takes us along the workshop back road past the coal docks. We were about to play 'Hunt the Wagon' to find the coal grab, which Gordon & Bennett had hidden amongst the coaches. (Again!)



P23 - The coal handling wagon was only three coaches 'in', so it was an easy task to pull them out with the wagon attached and to spot the wagon in the foreground siding (behind the clubhouse) before putting the coaches back.



P24 - The short train is almost clear of the points and is just about to be called to a halt. Although it was broad daylight, this shunt move was still performed with radios.



P25 - The wagon's coupler had ended up pushed slightly out of alignment, the effects of which are worsened by the sagging 'alliance coupler' on the diesel. Carefully standing on the driver's side, Jeandre yanks the coupler over.



P26 - Alan Lawton (in blue) was already waiting at the head shunt's points tumbler after we had made our long journey back. With the number eight bay cleared, we could park the grab next to the swager and start the hoisting.



P27 - 'Andrew's' brake wheel stand with the tricky left-hand thread. (Note the left arrow.) The voltmeter shows why the battery keeps going flat. Just under 13 volts is insufficient to charge a calcium LA battery – the Lucas ACR alternator on a slow running diesel motor just isn't up to the task.



P28 - Here we are! Captain Curley directs the final line-up along the two long-bodied dismantled halves of the Tube Swager. It's not as easy as it looks as one needs to consider the radius and reach of the boom's operating area.



P29 - A great start to the job – you can see the octopus chain swinging from the grab – it had jammed in the grab's pivots. This photo shows the obstacles and walls restricting both the arc and the height of the boom operation, making this technically simple job into a proper 3D challenge.



P30 - This picture is educational as it shows the full reach of our useful coal handling wagon. The bucket was placed firmly on the ground in an attempt to relieve the weight in the suspensory pivots and hopefully to release the jammed chain. It didn't. So, out came the wedges and gwalas...



P31 - When the grab was previously used to hoist the Class 12AR bogie axle, someone had unthinkingly looped the octopus chains over the pivots to make a shorter sling. (They should have been looped around the impulse bar.)



P32 - Suggested by you-know-who ☺, an unusual view of the clam shell's bucket. It was lowered and tipped against the ground and then the boom rotated to offset the weight in the pivots – it worked and we got the jammed chain out.



P33 - It took three attempts to find the center of gravity and to slowly edge that heavy ironmongery away from its resting place. It is fairly easy to guide a suspended load – but it can be dangerous because even though the weight is suspended, you still have the full inertia to contend with – which can crush extremities if you are not 100% alert.



P34 - The final lift for the Swager base section with the shorter slinging took place out in the yard again, as that was the only location where the coal grab's booms could extend high enough to swing the load over the two bunkers.



P35 - We took that heavy chunk of iron for a nice little jaunt out and around the turning balloon. We are on the back tracks and heading for the 15M shop yard again – with the Swager base now on the opposite side of the turned train.



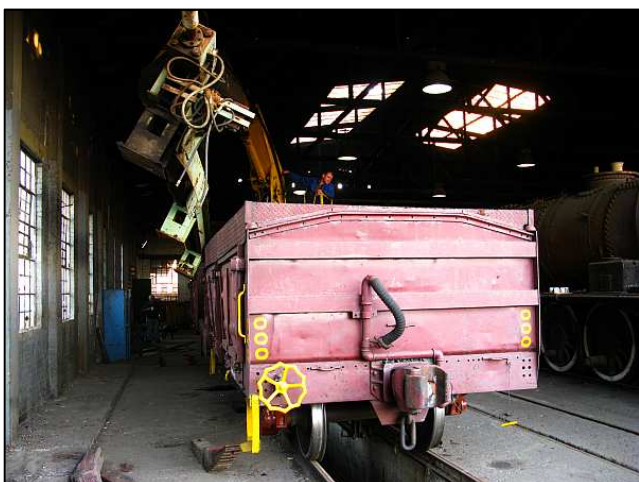
P36 - Returning from the headshunt. I always find these funny little work trains fascinating as they remind me of lego train sets, or perhaps a Thomas train set, where the models have lots of extra features to keep the kids entertained. ☺



P37 - Getting the asymmetric load through the heavy gates was going to be a problem and you can see by the golden light that it was getting late. Note the use of the open grab to force the ram end down to prevent tipping.



P38 - The load went through the gates, but it would foul on the coiled barbed wire and its supports. Some rather prickly adjustment took place and the load was shifted as well. It had to go in side saddle as there wouldn't be enough clearance room to lift the load later.



P39 - One of the hardest things to do with the hoisting was to find the center of gravity for the asymmetrical machine. Once it was found, hoisting went quicker. Here the base section is almost clear of the scuttle boards and just needed two people to lift the back end, which had snagged.



P40 - The coal grab's clamshell cannot be rotated, so the slings could not be traversed without smashing a window out. So we 'landed' the Swager ram-end first and braced it while adjusting the slings. For safety's sake, no one was allowed to go between the wagon and the tilted machine.



P41 - A synchronized shove to get some momentum going. The final move was a long-levered swing using the ram base as a pivot. I have frequently cursed the uneven, pitted flooring of the workshops. Now I know where those chips come from – we added a few ourselves today!



P42 - The Swager's top section was dragged into alignment with the grab via chains and then hauled up 'side-saddle' against the wagon. It was being slowly shunted out at this point. The nice thing about playing with an old DZ wagon is that you don't have to worry about the paintwork so much.



P43 - The idea was to lower the Swager section in the yard, and then to shunt the wagon to the other side, and then to return the train to Bay No1 with the machinery now on the side of the wagon facing the wall. You can see that the day was just about gone while we were still shunting around.



P44 - Dear ol' Swager, finally laid to rest – but to work again in the future. The machine is operated from the side but there is plenty of room for two workers to turn corners with boiler tubes which can be over 6ft long. Where the blue cabinet is will later become a tube storage rack area.



P45 - The wheel lathe gears have been returned from their hardening process and reassembly of the two gearboxes should be starting this week. We plan to contract the electrical work out and if it is done in time, we COULD have the wheel lathe running for the Depot Open Day on 26 July.



P46 - Class 25NC 3404 sleeping in the morning sunshine. To the right, a strip of new grass has been laid to be able to get a root-hold before the summer storms. That dead section of track, formally Shongololo Express's axle storage line, is soon to be lifted to provide vehicular access to the North side of the Depot and parking for the future museum.