



## From the Chairman

It is with pleasure and relief that I can report that '53 is returned to Swanage from Portland and has been on running-in turns.

That simple statement hides the details of the number of people and the number of hours that they have put in just to make that happen. I hope I have managed to thank all those involved, but should you not have been and are reading this missive, please consider yourself thanked and know that your efforts are appreciated.

The locomotive arrived at Norden on 5<sup>th</sup> April and at the end of the running day, was collected by 80104 and towed slowly to Swanage. More details and some of Andrew P.M. Wright's images of 2007 and 1987 can be found on the Swanage Railway web-site at <http://www.swanagerailway.co.uk/news361.htm>

The locomotive being back in service does not mean an end to its management though; there are still jobs which must be planned which could not be included in the overhaul for various reasons; the over-riding one being finance. Subsequent newsletters will carry details of the jobs to be done and the likely costs.

I was fortunate in being asked to drive '53 after the new valve castings had been machined and installed and the timing set up. For three days we made increasingly longer runs between stopping to check for warmth in anything other than the boiler until the final day when coaches were added. Of course there were minor items that will need attention but the basic locomotive was 'good and strong'. Old 'Arry (Frith) would have approved. As quoted from H.F.Andrews' pamphlet, the beats were as described in Good King Wenceslas; 'deep and crisp and even'.

The locomotive will be requested as the service loco on the day of the Annual General Meeting (see later for details thereon) – this may act as a spur for share-holders to attend the meeting though it may also act as a brake on the discussion that usually follows the business meeting !

## Financial Matters

In the last edition of Travellers' Tales I discussed "Where did all the money go?" I can say that when 30053 returned to Swanage in the first week of April 2007 the overhaul had cost £108.7K. This expenditure has been financed as follows:

	£' 000
1 <sup>st</sup> November 2004	
available for overhaul	77.5
1 <sup>st</sup> November to 31 <sup>st</sup> March 2007	
overhaul fund income	3.1
shares issued	15.9
prepaid steaming fees claimed on expenditure of £108.7K	11.8
	108.3

Pre-paid steaming fees will be deducted from fees earned once 30053 enters revenue-earning service, thus reducing the amount available for future work on the Company's locomotive. The 'mortgaging' of future income is not without precedent as the same situation existed on completion of the restoration of the locomotive in 1992.

### **Secretary's Snippets**

The date of the Members' Annual General Meeting for 2007 has been set as Saturday, 29<sup>th</sup> September and the meeting will be held, as usual, in the Meeting Room at Corfe Castle Station. Members should receive the formal notice of meeting with its accompanying documentation not later than Friday, 7<sup>th</sup> September. May I remind those members who have elected to receive communications from the Company by electronic means that a valid form of proxy requires an original signature of the member. A copy of the Proxy Form must be printed, completed and signed before being sent to the Registered Office.

**Insurance** - Nothing to report.

### **Locomotive Report**

The hydraulic test on the boiler was carried out on the 14<sup>th</sup> February this year at Portland. It isn't known whether St. Valentine had any involvement in the proceedings but according to the Inspector's report, the boiler was able to hold the required 240 lbs/sq. in. for 30 minutes with only minor leakage from the gauge frame cocks. No leakage or deflection was noted on the boiler.

Test Pressure = 1.25 x Working Pressure (175) + 10 psi = 240 psi

I realise that this calculation is not arithmetically correct, but you must appreciate that 240 is the nearest mark on the pressure gauge dial greater than 228.75 psi.

The leakage from the gauge frame cocks was probably due to the packing needing 'nipping up' as it was new. The gauge frames are one of those items to which attention must be paid (when we can afford it) as they are showing their age. The

handles are attached to tapered plug cocks through which a hole is bored which, when it is aligned with the hole in the equally-tapered valve body, allows the water or steam to flow. Continual use and refurbishment causes the tapered plug gradually to seat further into the valve body both reducing the flow aperture and making it increasingly difficult to get the seal around the stem steam-tight. The solution will probably be to have new valve bodies and cocks cast and machined to accept 'Klinger' sleeves which would have certain advantages over the original pattern:

- They are easily changed, being a replaceable part, and readily available
- The originals were designed to use asbestos to make them steam-tight which is no longer available and there is no real substitute
- The original fittings would not be subject to any further wear

Once the hydraulic test was passed, plans were made for the steam test which was also passed successfully. The boiler was then wrapped in mineral wool blanketing and the thin metal cladding fitted ready to be lifted back into the frames.

The re-assembly was completed by the lifting on of sand boxes, side tanks and cab roof and bolted all together.

Once on the rails at Norden '53 was examined to make sure that it was in a suitable condition to be towed back to Swanage and copiously oiled. During the journey frequent stops were made to check for anything untoward and the right-hand coupling rod was noticed to be warming up, which was later found to be due to insufficient end-float on the new bush. After being put in the shed at Swanage the coupling rod was dropped off and the bush relieved. No problems were found with it during test running.

One job which did not get done at Portland was the machining of the new slide-valve castings. The reason for this is the lack of drawings which would have given dimensions and tolerances; all we had were the old slide-valves to act as a pattern and which were by this time worn out. The M7's slide-valves are unlike most other locomotives as there are four of them; two for each cylinder, an upper and a lower which slide against the cylinder port faces to admit and exhaust steam. One of each sit in each of the two buckles which look much like very large tridents mounted horizontally and are reciprocated by the die-blocks which sit in the expansion links.

This issue was discussed with Keith Sturt at the Bluebell as he had had plenty of experience with the Chatham 'H' Class although there are a number of differences between the two 0-4-4Ts. Keith agreed that the best idea would be for us to visit Sheffield Park, bringing the old and new valves, the buckles and all the measurements that Ollie (Furnell) had so painstakingly taken from the cylinder ports. This we did having a most interesting and valuable day and learning so much from Keith's experiences.

On return from Sheffield Park Ollie and Graham (Froud) undertook to have the M7 ready for the planned celebration of the 40<sup>th</sup> Anniversary of the end of Southern Steam. Much 'spare' time was spent in machining the valve castings and trial fittings until they declared themselves satisfied and the valve cover bolted down.

The other jobs that were also completed whilst this was going on, were the re-instatement of the steam reverser quadrant and its lever and linkage to the cylinder, the sanding gear and its linkage and the overhaul of the cylinder drain cocks and their operating linkage.

Some modifications have been made to the locomotive to bring it in line with modern operating practices.

The first of these was an ash-pan spray that is supplied from the fireman's side injector which should dampen the ardour of any potential fire-starting embers escaping via an open damper. Originally there had been an ash-pan watering cock fitted at the front of the fire-man's side front locker which allowed water from the side tank to flood the ash-pan. This was made non-operational to obviate the possibility of it being turned on and then forgotten. As the water would have run out underneath the loco there would have been no obvious indication until an injector blew off due to lack of water and that would have been too late.

A new spark-arrester is also being fabricated for mounting on the blast pipe for a similar reason. The M7s were not known as 'fire-chuckers' whilst in service with BR and this has not been problem in preservation, however, it was felt that as attitudes have changed towards a 'blame culture' it would be prudent to protect our position.

The other modification was made possible by the conversion of the ash-pan spray: the addition of a pett (or pep) pipe which enables the footplate to be kept clean. This is also fed from the same source as the ash-pan spray and will be welcomed by footplate crews trying to keep the footplate clean and dust free. Running bunker-first will also be enhanced as the wind blows any loose coal-dust in the bunker through the bunker door into the cab where it swirls around. The pipe can also be used to dampen the coal in the bunker (through one of the rear windows) and can be seen in the upper photograph on page 6. Originally there had been a 'bucket cock', mounted low-down on the front of the bunker on the driver's side (though far too low to fill a bucket) which allowed water from the well-tank (under the coal space) to run onto the floor. The fireman then had to use a brush to dampen and clean the floor.

### **Latest Situation** (as of 23rd July)

'53 ran without any problems during the three days of the 40<sup>th</sup> Anniversary weekend – the first two days were spent on the shuttles between Harman's Cross and Norden, shared with 30075. On the Monday '53 took its rightful place in the pool of locomotives pulling service trains.

The locomotive is now back in the engine shed at Swanage mainly because there were so many other locomotives on site that there was nowhere else to put it.

New upper and lower firehole protectors are on order and now that the patterns have been retrieved from the Pattern Store at Williton (WSR!), should soon be repaired, used for a cast and stored properly at the foundry.

Graham has made a new restrictor for the driver's side gauge glass top feed so that the water level does not shoot up out of sight when the atomizer is in use. The steam feed for the atomizer (or displacement lubricator) is taken from the top of the driver's side

gauge frame, thus steam is admitted *via* the condensing coil when the steam cock handle points at the cab roof. Without a restrictor the sudden decrease in pressure pulls the water level up above the sight glass. The boiler pressure gauge is fed in the same way, with a restrictor from the top of the fireman's side gauge frame.

Some readers may have noticed in the past the small empty baked bean tin which swung from the atomizer drain screw; Graham has replaced this with a length of copper pipe which now deposits the water (which displaced the oil) on the ground beneath the cab floor.

### **Thanks to:**

Keith Sturt - for the information on collar studs and slide valves so freely given and also the copy of H.F.Andrews pamphlet on the setting of slide-valves.

Ollie – for his persistence in understanding the M7 valve gear, his painstaking measuring and machining; even giving up a firing turn on his birthday to complete the slide-valve machining, and all the extra hours put in just to get '53 out in time.

Graham – for his expertise in designing, making and fitting the ash-pan spray and pett pipe, the new condensing coil for the atomiser, all the pipe-work and all the extra hours that were needed to get '53 in steam for the 40<sup>th</sup> Anniversary week-end.

James Cox – for his time and efforts as the 'third man' on jobs that need six hands

Andy Dunster – for the supply and fitting of the new cab floor

Billie Johnson – for the new brick arch

Jason – for welding repairs to the cab roof and side tanks.

Willie Bath and Southern Locomotives – for the use of their equipment to machine the new slide-valve castings and various other items...

As it has been nearly three years since an M7 was seen in steam the reader may be forgiven for seeking reassurance that the overhaul really is complete... On the next page are a couple of digital photographs as proof taken by Debbie Wilkins during the 40<sup>th</sup> Anniversary of the End of Southern Steam week-end, 7 - 9<sup>th</sup> July 2007.



**30053 running round its train at Harman's Cross (above) and Norden (below).**



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