N.E.L.P.G. NEWS



NO. 172 APR. 1996

EDITORIAL

In his Chairman's report to the forthcoming Annual General Meeting, Included in the supplement with this issue of the NEWS, Maurice Bums lauds the sterling efforts of the Group's volunteer workforce in their painstaking work on the J27 and A2. The last eighteen months have been particularly difficult for the Group with considerable expenditure on the locomotives without commensurate income, and Peter Robinson makes some pertinent comments on this in his report to the AGM.

It is therefore most encouraging to see the J27's overhaul all but finished as this month's front cover so magnificently portrays. This time - I am most reliably informed! - the A2 will have been steamed by the time members receive this issue, so it should not be too long before these two locomotives start to repay the not inconsiderable investment in terms of manpower and finance.

However, we should not get carried away since the mileage available to the Group on the NYMR is not great and will need to be shared amongst our locomotives; in 1995 the Q7 and J72 amassed less than 3,000 miles between them The J27 is not expected to be used on the 7,8 or 9 coach trains of the peak season, which is when the Q7 comes into its own. Whilst the A2 is likely to be a great attraction, especially alongside Sir Nigel Gresley, in all probability its mileage will be restricted. The J72 will no doubt see use on gala days and, hopefully, can be seen paired with the beautiful NER inspection saloon more often, but its contribution to the Group's coffers will sadly be minimal.

What is thought provoking is the possibility of some form of LNER/BR(E) event which could see 60532, 60007, 65894, 69023 and 901 all in steam together. If such a feast could be arranged, it would surely be a great success. So, watch this space!

The thorny problem of a return to the main line is still not resolved, though progress is being made. The Locomotive Maintenance Policy is now completed, a major task, and the vexed issue of driver training is still the subject of debate, though it has to be said that, at present, the desired assurances are not yet forthcoming. As has been said before the privatisation scene is an ever changing one and a number of new avenues are being explored in an effort to achieve the outcome that we all seek in order to see the A2 back where it belongs.

The J27 has, of course, been restored to a standard that would enable it to be used on Railtrack lines, and there has been talk of trains to Whitby and to Stanhope, on the Weardale line, being hauled by 65894.

So, all in all, after the trials and tribulations of 1995 and the first part of this year, thanks to the Group's good financial husbandry and, perhaps more than ever before, the excellent efforts of the Group's small but dedicated volunteer workforce, the summer of 1996 should be one to look forward to and sayour.

LOCOMOTIVE REPORT by Gordon Wells, Maurice Burns & Martin Lloyd

J27 No. 65894

To remove the leading wheelset for the replacement of the cracked axle the loco was lifted by specialist jacking contractors on 14th February. This operation provided the most unusual spectacle a J27 with its driving wheels three feet above the rails. Once the wheelset had been rolled out and was clear the frames were lowered back down with the front supported on packing, this allowed reassembly work to continue during the time wheels were away at BSC (a full blow by blow account of the axle saga by Maurice Bums appears as a separate article - and makes astounding reading!).

With the fitting of the boiler cladding finally completed (setting a record for how long it actually took!), this allowed the cab to be refitted on March 7th. By this time the majority of the cab pipework was already in place, including the addition of an ashpan sprinkler fed from the L.H injector. In addition a water connection has been fitted in order to swill out the ashpan when disposing. Len Clarke has visited Wilton several times to progress the painting of the loco and tender which was completed by the end of March.

As part of the procedure necessary to certify a loco for use on the main line, it is now a requirement laid down in the B.R Group Standards that any engineering changes (modifications made to the loco since its withdrawal from B.R service in 1967) have to be officially approved by the certifying body, Transmark. Alterations made since B.R ownership include the fitting of the vacuum brake and steam heat equipment (25 years ago!), modifications to the piston valves and improvements to the lubrication of the axleboxes (10 years ago), plus the more recent fitting of a rocking grate, hopper ashpan, ashpan sprinkler, tender ground level water filler and a speedometer.

A late addition to the main line requirements was an instruction that the loco had to be fitted with a through air pipe and an emergency air brake valve and pressure gauge in the cab. The reason for the air pipe is that in the event of a loco failure an air braked diesel can haul the loco and have control of the train brakes - assuming it is dual braked stock. Some time ago we collected together a kit of parts for fitting a through air pipe to the support coach. As this material was readily to hand it was used for the same purpose but on a loco. In this respect the help of Mike Hammond (who travels from Nottingham) and Mike Gorman with welding and silver soldering proved invaluable.

The leading wheelset, complete with new axle was returned to Wilton on 21st March and refitted to the loco in a repeat jacking operation the following day. Reassembly began immediately.

All outstanding work was thus completed in time for a steam test planned for 5th April. Witnessed by 15 working party members this was a qualified success and the locomotive was able to move under its own power for the first time since the overhaul commenced three years ago. All present had a go at driving, under proper supervision, as just reward for their efforts.

As a result of the steaming a total of 27 jobs - some major but most minor - require attention, so the locomotive was moved back inside No.5 depot. A further steam test will be required to check these repairs and for the insurance company inspection. Only when all the repairs are complete to our satisfaction will the J27 move to the NYMR, but as the railway has a need for a medium sized locomotive for its early season services in April and May, every effort is being made to finalise the overhaul.

T2 No. 2238

In store in Deviation Shed.

The batch of broken springs which were sent away for repair at the end of last season were returned in early February. The missing R.H centre tender spring which was borrowed for use on the O7 has now been refitted.

In a rash of activity on 25th February, when spare hands were available, all but two of the superheater elements were removed from the boiler. The remaining elements are stuck in the tubes and will require persuading to come out.

K1 No. 2005

The loco frames and tender are in store in No. 5 Depot, Wilton.

Whilst nothing has moved at Wilton, progress is still being made on the complex firebox repair at B.P. Hull. At present 75% of the new copper plates are fitted and all holes drilled for foundation ring rivets. The current plan is for the last section of copper welding and renewal of the outer steel sheets to be done by the end of May. The boiler would then be moved back to Chatham for the fitting of a new throatplate and retubing. A late autumn finish for the boiler is hoped for.

Q7 No. 901

The return of the repaired batch of springs provided a replacement for the cracked L.H trailing tender spring which was replaced on 18th February. Over the last year five of the six springs have been replaced and it was planned to weigh the tender before the start of the season; this duly took place on 1st April. Adrian Dennis completed the painting of the coal space, although his efforts are now hidden under a pile of coal.

The three crossheads have received attention to reduce the running clearances to the correct figures and the centre valve motion parts which were removed during the winter have been refitted

Following the removal of four small tubes from the boiler for an assessment of the tube condition, which was found to be very good, a batch of ten new tubes were received and

four have been fitted to the boiler. This work was undertaken by the NYMR boilersmith working under contract. In the firebox, completion of the work on the copper lacings enabled the firebox concrete arch to be fitted on 10th March.

The loco was given a successful insurance company steam test on 13th March and is available for traffic when required In fact the call to duty came unexpectedly early when, with the NYMR season just five days old, the Q7 worked two trains to Pickering on 3rd April.

J72 No. 69023

The loco was taken out of winter storage and prepared for an insurance company steam test on 13th March. Unfortunately a boiler door joint blew out at 130 psi and the fire had to be thrown out. The door was repaired and a second successful test took place on 20th March.

A2 No. 60532 Blue Peter

The truth is, Thornaby is such a nice place to work, all the tools we need are on the loco, the workforce is friendly and the depot is closer to home than Wilton or Grosmont. We don't really want to finish the A2 rebuild and break up our elitist little team to go and be just small spokes in someone else's big wheel (whether its on an axle or not!).

I've said that in deference to the witchcraft that seems to bedevil the job. Whenever someone makes a confident prediction, or arranges for the next stage, something always goes wrong. The subscribers to the "It'll be finished when its finished" doctrine are having a field day.

A couple of weeks ago all that remained to do was for the new return cranks to be fitted, to then couple up the outside eccentric rods and then do the valve timing. We thought that the rods might need jumping or stretching by a few thou but that was not seen as a problem. Initial fitting showed the rods to be too long at one end of the piston stroke and too short at the other, by differing amounts.

As was confirmed by talking to Roy Green, who retired as NYMR MPD mechanical foreman 2 - 3 years ago but has returned until a new person can be appointed, that not only were the rods slightly wrong in length but the return cranks were on at the wrong angle.

Now the return cranks looked to be correct so Richard Campbell made a dummy return crank out of plate, with a circular clamp in place of the usual square. This latter feature allowed the crank to be set at any angle on the crank pin but then be clamped in place for marking up. The locomotive was then moved to forward dead centre for the right hand con rod Since we could not obtain the services of a shunter and pinch bars seemed like very hard work, there being only two on the Thornaby depot, we moved the beast with ratchet chain blocks. Having taken measurements at FDC we then moved the loco a half revolution to back dead centre. For those who remember their geometry, that works out to 9' 8 1/4". In order to check the measurements we moved the loco back and forth by the same amount

four times, then transferred our attentions to the left hand side of the loco and did it all again. We felt as though we had been entered for some Guinness Book of Records attempt.

The return cranks, suitably marked up, were then taken to our local friendly machine shop for the squares to be built up with weld then re machined at a different angle This is actually cheating slightly because it is the crank pins which are at the wrong angle and the return cranks had been machined correctly. However, this seemed a better solution to the problem than the removal, again, of the trailing driving wheelset for correction to the crank pins themselves. Its a case of two wrongs making a right, for a change! Of course with the usual luck of the Albatross, the first return crank to be attended to, the LHS one, was slightly over corrected and the job was to do again. However the RHS return crank, when corrected, was re-fitted on Thursday March 21st and was found to be nicely within the tolerable limits such that the eccentric rod fitted without alteration. This necessitated dragging the loco backwards and forwards with the chain blocks again but this time we had a full boiler of water to drag around as well. Planning!

One of the parts that Geoff Drury was keen for us to improve was the helper spring which acts upon the weigh shaft and takes the weight of the valve gear thus making the operation of the reverser much easier. Geoff felt that it should be easier to move the reverser towards rather than away from mid gear. We have had 18 months to tackle this job and have left it until now. The job wont delay the finishing of the loco, its just that having hardly ever moved the reverser during the last 18 months, now that we have to move it eight or nine times a night doing the setting up of the valve gear, we don't have the pigging spring in place and moving the reverser out of full forward gear is damned hard work. Planning again!

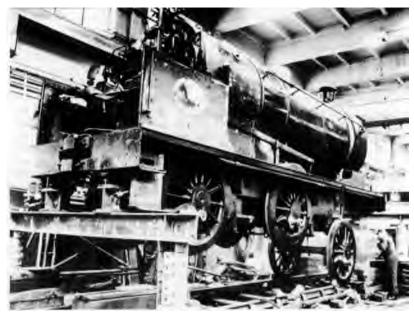
All that remains to complete the RHS is for the crank pin to be built up slightly with weld, the return crank to be re-fitted and then the bolt and pin holes to be reamed out on their new alignment. Then the new self aligning ball bearing, with leather seal on the inside and brass cover on the outside can be fitted to the eccentric rod and the rod fitted to the engine. This completeth the RHS! A similar list of work on the LHS finishes the assembly altogether.

I have always maintained that I am not superstitious, and don't believe in fate but as age marches on with more and more coincidences cropping up, one begins to wonder. The other day I was driving my little van through Nunthorpe, towards Thornaby as it happened, at a steady 30 mph or so and this idiot tried to overtake on a blind corner. Not content he had another go a few yards further on and nearly caused a head on collision, only averted by the driver of the oncoming car, and myself taking avoiding action. The offending Mercedes had personal number plates, OCT 1. Just for a moment I wondered about the driver.

A4 No. 2509 Silver Link

At the Great Central Railway, Loughborough, undergoing restoration to running order.

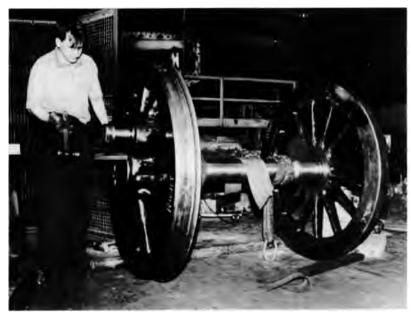
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Floating on air, the J27 is jacked up inside No.5 depot at Wilton on 13th February in order to remove the leading wheel with its fractured axle (all pictures by Maurice Bums).



Having successfully pressed off the wheels after overcoming considerable difficulties, the wheels are laid down for examination at the BSC Redcar fitting shop on 11th March.



The night shift at BSC Redcar fitting shop on 18th March trial fits the key between the new axle and the wheel boss; later that night the job was complete.



Some of the 30 volunteers involved in the 3 year J27 overhaul pose at Wilton on 5th April. From 1. to r., on running plate, Doug Hardy, Dave Paul, John Lummas, Richard Pearson, Fred Ramshaw; standing, Eric Knott, Brian Nunn, Colin Smith, Mike Gasson, Trevor Mussett, Dave Wilson, Richard Campbell, Derek Shorton, Maurice Burns; seated, Chris Davison.

J27 AXLE RENEWAL IN 38 DAYS - A SPECIAL REPORT by Maurice Burns

The replacement of locomotive parts is nothing new but the time taken to 'make things happen' is rarely highlighted in the NEWS. The recent replacement of the J27's leading axle is a timely example <u>I</u>

The axle was found to be fractured by a routine ultrasonic test in early December. After 16 telephone calls around the U.K., Ian Riley, CME of the East Lancashire Railway at Bury, offered to supply a new forged axle, with British Steel lined up to do the fitting and machining. Sounds easy and straightforward? This is what actually happened:-

10/1/96	Received fax from Ian Riley detailing price of £2,300 for new forging.	
11/196	Faxed order and requested delivery in writing.	
13, 19 & 25/196	Phoned ELR for delivery dates.	
31/1/96	Obtained Ian Riley's permission to deal directly with ABB Crewe.	
1 & 3/2/96 Phoned ABB Crewe for delivery dates.		
5/2/96	Faxed ABB Crewe regarding urgent need for delivery date.	
7/2/96	Received fax from ABB Crewe for delivery at end of February. New axle now forged; rough machining still to be done.	
8/2/96	Faxed ABB Crewe with delivery instruction to BSC Lackenby.	
9/2/96	Made preliminary arrangements with Gibson Jacking Specialist for lifting of J27 for wheel removal.	
10/2/96	Faxed order for loco lift. Price £1,500 for two lifts. Organised volunteer assistance for lift - 6 calls.	
13/2/96	Loco lifted and wheel removed at 2 p.m. Meeting with BSC at 5 p. m. attended by Maurice Burns, Paul Hutchinson (and Richard Gibbon of the NRM as observer) to plan machining and fitting of new axle. In the middle of the meeting the wheel arrived, leaving the NRM representative asking "How did we do that?" Price promised for 5 p.m. the next day.	
14/2/96	Fax received from BSC with price of £3,229.	
15/2/96	Faxed order to BSC.	

16/2/96	Wheels to be pressed off Receive phone call at I0.30 p.m wheels will not come off at 215 tons pressure. What do we do? Instructed old axle ends to be bored out to lessen load needed to press wheels off. Extra cost of £800.
19/2/96	Receive call at 8 a.m. to say wheels now removed.
20/2/96	BSC phoned with a problem. Tapers on wheel seats are not consistent. Securing key not parallel. A meeting was required.
23/2/96	Meeting held. Decided to machine new keyways parallel in wheels, cost £1,000, and fit new parallel keys, cost £300.
26 & 27/2/96	Wheel keyways and new keys machined.
1/3/96	BSC phoned to say that best computer programmer for CNC machine used to machine the forged axle was going on a week's holiday. One week lost.
9/3/96	BSC phoned expressing concern at wheel taper dimensions.
11/3/96	Meeting at BSC Lackenby to obtain all dimensions of wheel axle tapers. Major problem. Quick decision required. Consult Paul Hutchinson and Richard Campbell to compare Blue Peter wheel seat dimensions.
12/3/96	Phoned Paul at 9 a.m. and agreed dimensions for new axle wheel seats. 9.15 a.m. faxed drawing and dimensions to BSC. 9.45 a m. machining commenced.
14/3/96	New axle fully machined.
15 & 16/3/96	Wheels fitted to new axle.
17/3/96	BSC phoned at 8 a.m. Wheel back to back dimension under minimum tolerance. Visited machine shop and made full dimensional check.
18/3/96	Phoned BSC at 8 a.m. instructing RH wheel to be moved outwards by 0.060". BSC phoned at I p.m. to say wheel is in hydraulic press but will not move. There followed a minutes silence! Agreed to move LH wheel the same distance. BSC phoned at 8 p.m. to say dimension now OK after three attempts. At 8.30 p.m. visited machine shop; dimensions OK but found axle centres (for future tyre turning) not big enough! Visited Wilton at 9.30 p.m. and measured other wheel centres. Phoned machine shop at 11 p.m. with instructions.
19/3/96	Phoned Paul Hutchinson for transport arrangements and Richard Pearson for unloading at Wilton. Wheel arrives safely at 4 p.m.

20/3/96	Six calls to arrange working party for 21/3/96. Problem with jacking specialist asking for I week delay.
21/3/96	Jacking specialist confirms lift for 22/3/96. Working party fits axleboxes onto wheelset.
22/3/96	$\rm J27\ front$ wheels with new axle refitted to engine just 38 days after it was removed.

In summary, this one task took:-

Over 60 telephone calls

12 faxes

70 hours by the Loco Caretaker 150 hours by other volunteers

£8.500

and the engine looks no different than it did before, except that it no longer has a fractured axle!

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WORKING PARTIES

We are currently working on three sites - Thornaby (A2), ICI Wilton (J27 and K1), and Grosmont (Q7 and J72). With the aim of having all of these locomotives available as soon as possible, work priorities may occasionally change depending on progress. Intending volunteers are therefore requested to check with the respective Responsible Officers on what work is available, when and where, as follows:-

THORNABY - Paul Hutchinson 01642 895081 ICI WILTON - Dave or Richard Pearson 01642 474978 GROSMONT - Clive Goult 01642 473451

New members are always welcome, so if you think YOU can help please give Paul, Dave, Richard or Clive a ring as soon as possible. Don't delay, your Group needs you!

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N.E.L.P.G. LOCOMOTIVE MAINTENANCE POLICY

The NELPG Locomotive Maintenance Policy was duly completed by the second week of March and formally submitted to Brian Penney of Transmark for comments. It is believed that the policy is unique, so far, in that it embraces all three of the Group's locomotives that might be used on Railtrack or other private lines, in the one document. Whilst many aspects of the policy such as details of the home base, health and safety, examination schedules, and maintenance were common to the J27, K I and A2, all the detailed differences between the three locomotives had to be identified and noted, and this proved to be a lengthy and tiresome task in a document which runs to 130 pages.

Initial consultation responses to the Policy were encouraging but a meeting with Brian Penney was scheduled for 23rd April to, hopefully, finalise the document for approval.

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MORE PRESERVATION SPEAK by Martin Lloyd

Last month's definitions generated enough interest for me to continue my research and so I have found a couple more.

When someone says, "Stay there, I'll go and get you a spanner", he really means that, to save you coming out from under the engine, he will set off to go and get a spanner but will bump into someone who asks if he will get a screwdriver whilst he is in the stores. He will then go for the screw driver, and bring a pair of pliers, just in case and will get interested in the screwdriver job, forgetting about you altogether. You will eventually crawl from under the engine, go and get a spanner yourself but on your return you find that the chap who offered to get it for you has come back, thought you had finished the job so took your hammer to give to the chap who wanted the screwdriver. Why he picked up the pliers, the only pair, that someone else is now wasting time looking for, remains a mystery.

When someone says, "Tell you what, don't you think it would be quicker to do it this way", what he means is, he doesn't think your idea is as good as his, despite you having done it your way the last three or four times. So he starts to do it his way at one end of the job whilst, unawares, you do it your way at your end. Nine tenths of the way through the job you find out that the two options are totally incompatible so, reluctantly persuaded, you start afresh to do your end his way only to find, nine tenths of the way through the job again that he must have thought that your way wasn't so daft and he has changed from his method to yours half way. Having wasted the whole evening, you both pack in and some one else does the job the following week, alone, in next to no time, using your method and accuses you of not remembering how the job was done last time.

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NYMR 1996 SERVICES

Included with this issue of the NEWS is a copy of the 1996 NYMR timetable to help members plan their visits to the line.

If, however, you do not need the timetable, please don't throw it away; give it to a friend, relation or colleague at work and persuade them to visit the railway, pointing out of course that they may see or travel behind Blue Peter, the J27, the Q7 - or would they be interested in hiring the NER saloon hauled by the J72!?

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BLUE PETER LUNCHEON SPECIAL

Due to the still uncertain completion date for the A2 (see loco report) it has not been possible to make any firm arrangements regarding the possibility of running a special dining train.

When we finally have a working locomotive again and the details are finalised those members who have expressed an interest in travelling will be the first to receive the details.

Members who would like to travel but who have not yet written in should send a stamped self addressed envelope to Bruce Poole at the address below.

Your envelope will Used to return a booking form once final arrangements have been made. The train will be on a Saturday, although the date will now most likely be in May or June.

Send your SAE to:-

Bruce Poole, 12 The Parklands, Ingleby Amcliffe, Northallerton, North Yorkshire

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FORTHCOMING EVENTS

Friday 3rd May

LOADHAUL - FREIGHT OPERATION by R. Holmes/A.Lickfold (SLS) The Settlement, St. Pauls Road, Middlesbrough. 7-15 p.m.

Friday 10th May

ANNUAL GENERAL MEETING followed by review of the year (NELPG) Ladle Hotel, Ladgate Lane, Middlesbrough. 7-30 p.m.

Wednesday 15th May

MORE MEMORIES FROM STEAM DAYS by Dick Hardy (SLS) Poverina Hotel, Normanby, Middlesbrough. 7-15 p.m.

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COVER PICTURES

<u>Front:</u> Metamorphosis complete! The P3 transformed. After its £85,000 heavy general overhaul BR J27 No.65894 stands immaculate at I.C.I. Wilton on 5th April on the occasion of the locomotive's first steaming (Maurice Bums).

<u>Back(top):-</u> The J27 inside No.5 depot at Wilton on 10th March 1996 with the cab being guided into place by Maurice Bums (Colin Smith).

<u>Back (bottom):</u>- With the NYMR season just five days old Q7 No.901 heads purposefully out of Goathland with the 11.50 Grosmont to Pickering on 3rd April (John Hunt).

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