

## **The Maunsell Legacy Part 2 (Copyright 2005)**

John Crosse concludes the story of the Maunsell years with a description of the locomotives that he developed from London & South Western Railway designs and his own work for the Southern Railway.

Maunsell had been Chief Mechanical Engineer for the South Eastern and Chatham Railway since 1917 and upon the formation of the Southern Railway in 1923 he was selected to take over responsibility for the whole fleet, thus gaining control of engines from the London and South Western stable designed by Urie. The LSWR had fewer restrictions on engine size than the other constituents and the fleet included a range of 4-6-0 types of fairly new construction. However, as with many classes, once in service various shortcomings become obvious as well as technical knowledge moving forward and so Maunsell set about both developing his own versions of the Urie machines and modifying the existing stock.

The H15 class was intended to be a mixed traffic type with first production taking place in 1914. It was a two-cylinder design (21" x 28") with 6' diameter driving wheels and a boiler pressure of 180 lb/ sq in. At the time an order for ten engines was outstanding and Maunsell fitted these with improved boilers of the same design as used on the King Arthurs. These engines entered service as SR 473-8 and 521-4. Maunsell rebuilds of Drummond F13s to H15 specification and several of the Urie H15s saw his eventual influence on all but one of the class of twenty six.

The class never strayed far from LSWR metals and whilst designed more with freight in mind than passenger work, they were frequent performers on passenger duties, especially on summer Saturdays. Several members of the class were recorded on the Atlantic Coast Express which regularly loaded to thirteen coaches.

All passed to British Railways being numbered 30330-5, 30473-8/82-91, 30521-4, 30335 being the one engine not modified by Maunsell. One member of the class was condemned in 1955 but the last three (30475, 30521/3) survived until December 1961. None were saved from cutting up.

The King Arthurs were one of the best known of Southern engines and were classified N15 by the company. They were intended for passenger use as was evident from the driving wheel diameter of 6' 7". Twenty of the Urie designed variant were in stock when the Southern Railway was formed- nos 736-55. All of these except 755 were modified with smaller cylinders during Maunsell's time and the whole batch received superheaters. Other details were also changed.

This batch of engines were always to be found on what became the South Western division, usually on front line passenger duties, although towards the end more mundane tasks were allocated. With withdrawal taking place between 1953 and 1957 the sub class passed away, but not the names as these were the twenty applied to the BR Standard Class 5 4-6-0s which were effectively their replacements.

The true Maunsell design had two 20 ½" x 28" cylinders, 200 lb/sq in boiler pressure, outside steam pipes, long travel valves and a number of other modifications. The first ten were built instead of a batch of H15s and it would seem

as though materials may already have been to hand as these engines appeared with the standard South Western design cab which precluded their use on a number of lines. This batch were numbered 448-57. Thereafter the cab profile was changed so that the engines could be used almost universally although they could never access the severely restricted Hastings route. Different sizes/types of tenders were also required depending on the intended area of use and thus some had 6 wheel types similar to those provide for the Ns and Us whilst others had the much larger 8 wheel bogie design seen on other South Western engines. Tender types were swapped between locos to meet operational needs.

Thirty members of the class (763-92) were constructed by the North British Locomotive Company in Glasgow in 1925 and were thereafter known as the 'Scotch Arthurs', these being quickly followed by a further fourteen from Eastleigh (793-806) to conclude the building programme in January 1927. Many articles have been written about the performance of these engines which were the real work horses of the Southern passenger services for many years.

It had been decided that a King Arthur should be retained as part of the National Collection and the engine of that name (30453) was duly laid aside in July 1961. However this engine had originally been paired with a Drummond pattern tender, the last of which had been cut up. Therefore the decision was taken to substitute 30777 Sir Lamiel and thus it is this engine, rather than King Arthur itself that represents the class and is operating on the Great Central Railway. All the other members of the class were duly cut up having been withdrawn between November 1958 (30454) and November 1962 (30770).

The S15 was the heavy freight version of the trio. Twenty Urie designed engines (496-515) entered traffic in 1920/1 and were subsequently superheated by Maunsell but were not modified in other ways to conform to the later Maunsell build.

Fifteen new S15s were ordered in July 1926. These had the same driving wheel diameter as the Urie design (5' 7") but had smaller cylinders of the same size as the Arthurs (20 1/2" x 28") and 200lb boiler pressure. These appeared as 823-37 to be followed in 1936 by a final order for ten being 838-47.

This class, like the N15s, was also the subject of tender swaps to allow them to work away from the South Western division but a high proportion of their work was in this area. Like the H15s they found employment on passenger turns at busy periods and were quite fleet of foot.

All of the class came into British Railways ownership having 30000 added to their numbers. When it came to withdrawal, the Maunsell variants fared a little better than their Urie counterparts. The first Urie condemnation was 30502 in November 1962 whilst 30512 was the last in March 1964. 30826 of the Maunsell build went as early as December 1962 but several of the class survived into 1965. Whilst officially withdrawn in September of that year 30837 was retained to work a rail tour on 9 January 1966 and thus became the final active example.

Fortunately this was not the end of the road for this class as several migrated to Barry Docks in the care of Dai Woodham. Two Urie examples found their way to

the Mid Hants (30499/506) whilst four Maunsell examples were saved. Of these 30847 has worked on the Bluebell Railway whilst 30828 has been on the main line and is now awaiting restoration at the Swanage Railway, whilst 30825 and 30841 have been used at the North Yorkshire Moors Railway, one donating parts to the other to have one working loco at any one time.

A lack of engines suitable for heavy express passenger work on the Southern was evident from the outset following the grouping. Whilst the King Arthurs were up to most tasks they were still only of a 5P classification and the need to work 500 ton boat trains dictated that something larger would be required. Thus the design for what would become the Lord Nelsons was prepared.

To achieve the power required within loading gauge and weight restrictions meant that a four cylinder layout was appropriate, these each measuring 16 ½" x 26" combined with 6' 7" driving wheels. A superheated taper boiler had a heating surface area of 2365 sq ft with a boiler pressure of 220 lb/in sq. The combined weight of the engine and tender was 140t 4cwt. For the first time on an Eastleigh built engine a Belpaire firebox was used. The drive was split between the front two coupled axles while a 135 degree crank angle gave the class a distinctive eight beats per wheel revolution.

850 entered service in August 1926 for evaluation before further orders were placed. A subsequent build of 15 was authorised with these entering service between May 1928 and November 1929. 859 was built new with 6' 3" coupled wheels to see if this would give a better performance over steeply graded routes. No real advantage seems to have been identified but the engine retained these wheels throughout. As built the engines did not have smoke deflectors, these being fitted subsequently to improve the clearance of the exhaust. Other modifications, including the fitting of the characteristic Lemaitre system complete with large diameter chimney were the work of Bullied and so fall outside the scope of this article.

The Lord Nelsons have featured many livery styles – greens of Sage, Olive, Malachite, Apple and Brunswick hues have been applied as well as black during the war years. The class were the front line motive power on the Southern for ten years before the Merchant Navies began to arrive. However due to the various teething problems and demands of the war years it was the early 1950s before the Lord Nelsons became allocated to the slightly less demanding duties. By this time they were all working out of Waterloo with the whole class eventually being allocated to Eastleigh.

Despite a direct hit by a German bomb on 852 the whole class survived into BR ownership being withdrawn during 1961 and 1962.

30850 Lord Nelson was rescued for the nation but spent a long time in store before being restored for mainline duties carrying Malachite green livery. A second restoration is nearing completion and the joys of the eight beat exhaust should be heard ringing out across the countryside once more.

Arguably the most charismatic of the Maunsell designs were the Schools 4-4-0s, designated class V. The class was borne out of the need to supply power for intermediate expresses. Various weight and loading gauge restrictions also had to be addressed and in particular a class that could work on the Hastings route was desirable. The fact that 5P capability could be packed into a loco of the size where only 2P capacity had been achieved in the past showed the scale of the achievement, creating the most powerful 4-4-0 ever.

Three cylinders were provided, each measuring 16 ½" x 26". 6' 7" diameter driving wheels were used with 220 lb boiler pressure and 2049 sq ft of heating area to give a tractive effort of 25,135 lb. The forty members of the class were constructed in a number of batches between March 1930 and July 1935 and were an immediate success proving themselves capable of handling heavy expresses at high speed. The class worked across all sections of the Southern but upon completion of the Kent Coast electrification and introduction of diesel units on the Hastings line the class ended up working Redhill- Reading duties and various South Western section duties.

As with the Lord Nelsons, smoke deflectors were added after construction and again Bullied tinkered with some of the engines although there was never a case for any drastic modifications. The class were numbered 900-39 in Southern days becoming BR 30900-39. Surplus to requirements, withdrawal started as early as January 1961 with a final 'big bang' removal from service in December 1962.

No less than three members of the class survived breaking, which, given the fairly early withdrawal dates, was quite an achievement. 30925 was selected to join the national collection. In all probability this engine was chosen due to its association with the Railway Correspondence and Travel Society who had used it as the society 'mascot' for many years as Cheltenham was the town in which the society was formed. Having languished in store at Stratford and Preston Park (Brighton) it moved to Tyseley and then Dinting before eventually coming under the direct control of York.

30926, now active on the North Yorkshire Moors railway was purchased out of service by the Steamtown Museum, of Bellows Falls USA. But although withdrawn in 1962 it was February 1966 before it went abroad in the company of M7 30053, both later being repatriated for further service.

The third survivor was 30928 *Stowe*, which was purchased for static display at the Montague Museum at Beaulieu, Hampshire along with three Pullman cars. Following redevelopment there was insufficient room and at the end of 1972 the engine was moved to Cranmore on the East Somerset Railway and later transferred to the Bluebell Railway where restoration to running order is underway.

As well as needing to supply power for passenger work the Southern was in need of goods locomotives. The result was the Q class of 0-6-0s, possibly the least successful of Maunsell's designs. All were constructed between March 1938 and the outbreak of World War II carrying numbers 530-549 and so were actually put to work in the Bullied period. Most duties were on the Central and Western divisions and whilst they had been intended for freight duties they did find occasional work on passenger

turns. They were however over shadowed by the superior Bullied Q1s that followed.

Because the engines were relatively modern they were among the later withdrawals so although the first three 30534/7/40 had been condemned in 1962 30535/45 survived until May 1965.

30541 was the lucky member of the class as it found its way to Barry and thus a lifeline to preservation on The Bluebell Railway where it has completed one ten year stint in service and awaits restoration for a second term.

And thus we come to the end of the Maunsell story, both literally and alphabetically with a look at the Z class of 0-8-0 tanks. These large tanks were intended for major yard shunting duties and were ideal for the job. However only eight were constructed as even in the mid 1930s diesels had shown that they could do the job more efficiently. Weighing in at nearly 72 tons these tanks had 3 16" x 28" cylinders with driving wheels of only 4' 8" diameter giving a tractive effort of 29,375 lbs. All were constructed in 1929 carrying numbers 950-7. Up until the war they spent most of their time working in the London area. Three of the class did migrate to Scotland however, being on loan to the War Department at Stranraer in 1943. Gradually the sphere of operation broadened with examples at Exmouth Junction, Eastleigh and Salisbury and one even migrated to Dover.

Relative fame came to the class when a number were put to work on the Exeter banking duties replacing the EIR tanks (see part I of this article) in 1959 before being ousted in due course by the Ws, this bringing about the demise of the class in the last quarter of 1962. All of the class were cut up.

Maunsell provided the Southern Railway with a fleet of efficient and practical locomotives in an age when his railway was looking to move many services to electric power- in turn he has given the heritage railway movement a varied and interesting selection of engines with which it can carry on its business for many years to come.