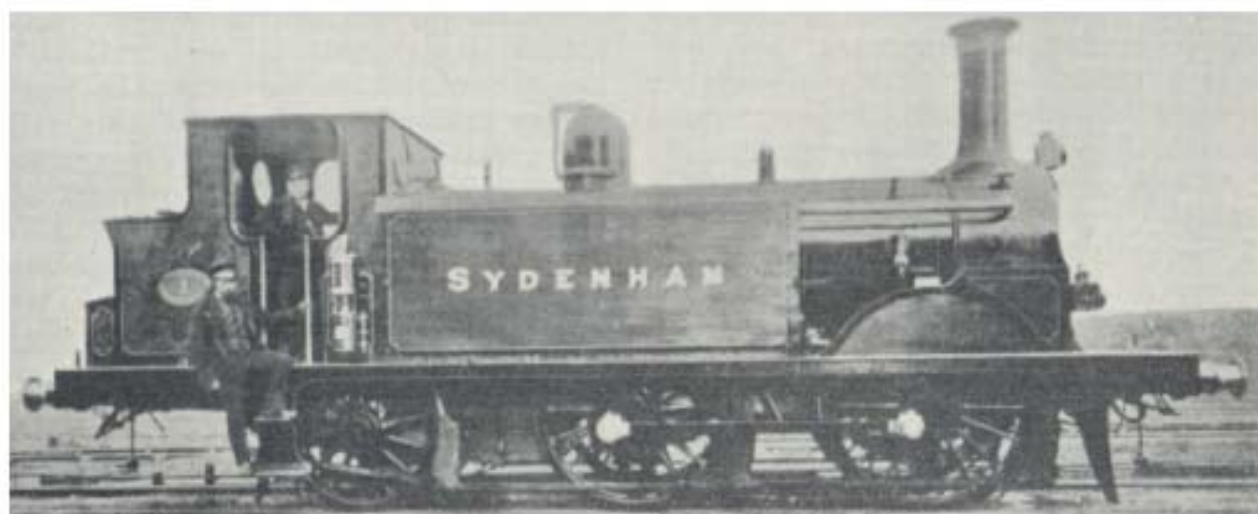


The Stroudley "D" Tanks

By B. G. WORSFOLD



No. 1, "Sydenham," the first of the "D" class 0-4-2 tanks, completed at Brighton Works in 1873

THE London, Brighton & South Coast Railway, with its heavy passenger traffic and comparatively short runs, was always suited to the use of tank engines. At the grouping in 1923, when it became part of the Southern Railway, out of a total stock of 619 locomotives, 442 were tank engines ranging from the little "Terrier" 0-6-0s to the powerful "Remembrance" class 4-6-4s.

In 1872, the first of the famous "Terriers" appeared; they were designed for working on the East London Railway, between New Cross and Liverpool Street, and the South London Line, between Victoria and London Bridge, which at that time were laid with very light rails, and therefore unable to carry the heavier locomotives. The "Terriers" soon established a reputation for themselves, and no doubt influenced by their success, William Stroudley, the Locomotive, Carriage & Wagon Superintendent, next turned his attention to a slightly larger design to deal with other London suburban and the intermediate, or secondary main-line traffic.

In 1873 the first of the "D" class tanks No. 1, *Sydenham*, emerged from Brighton Works. It was of the 0-4-2 wheel arrangement, with 5 ft. 6 in. driving wheels, and unusually large trailing wheels of 4 ft. 6 in. diameter. The total wheelbase was 15 ft., cylinders 17 in. by 24 in., and weight in working

order 38 tons 10 cwt. The boiler was fitted with spring-balanced safety valves, mounted on the dome, and a large copper-capped chimney of distinctive design adorned the smokebox. These locomotives were typical of the designer—neat and pleasing to the eye, and when set off in his passenger engine livery of Stroudley yellow, with brown lining, and red side-rods and frames, they looked very handsome.

The "D" tanks soon proved to be very capable little engines and, between 1873 and 1887, 125, numbered 1 to 34, 221 to 299, and 351 to 362, were constructed, all at Brighton except Nos. 233 to 267, which were built by Nielson & Company, Glasgow. They became the most numerous class of engines ever owned by the L.B.S.C.R., and in 1923, when they were absorbed in Southern Railway stock, there were 110 of them, a figure only approached by the South Eastern & Chatham Railway "C" class 0-6-0s, which comprised 108 engines. They therefore became the largest class owned by the newly-formed Southern Railway.

During their early years, the "D" tanks appeared all over the Brighton system and, apart from some reboiling and variations introduced by R. J. Billinton, ran more or less in their original form until 1906, when Douglas Earle Marsh began to rebuild them, as latterly

reclassified "D1." The chief alteration was in the boiler, for although it was of similar dimensions to the original pattern, the dome was placed further forward, and the safety valves were replaced by the Ramsbottom type, and moved to a position over the firebox. The original Stroudley chimney was at first retained, but was later discarded for one of Marsh's standard design.

At a later date, the bunkers were enlarged by building four coal rails round the sides, which considerably increased the coal capacity, rather a weak point

Another change during Marsh's time was the replacement of Stroudley's yellow livery by a dark amber, and except in a few special cases he abolished the long Brighton practice of giving each engine a name. The initials of the company appeared on the tank sides, a poor substitute for the names which had adorned these engines for so long.

From 1909 onwards, several engines were fitted for pull-and-push working, for which they were proved extremely suitable. In fact, it is remarkable that as late as 1932 the Great Western Railway



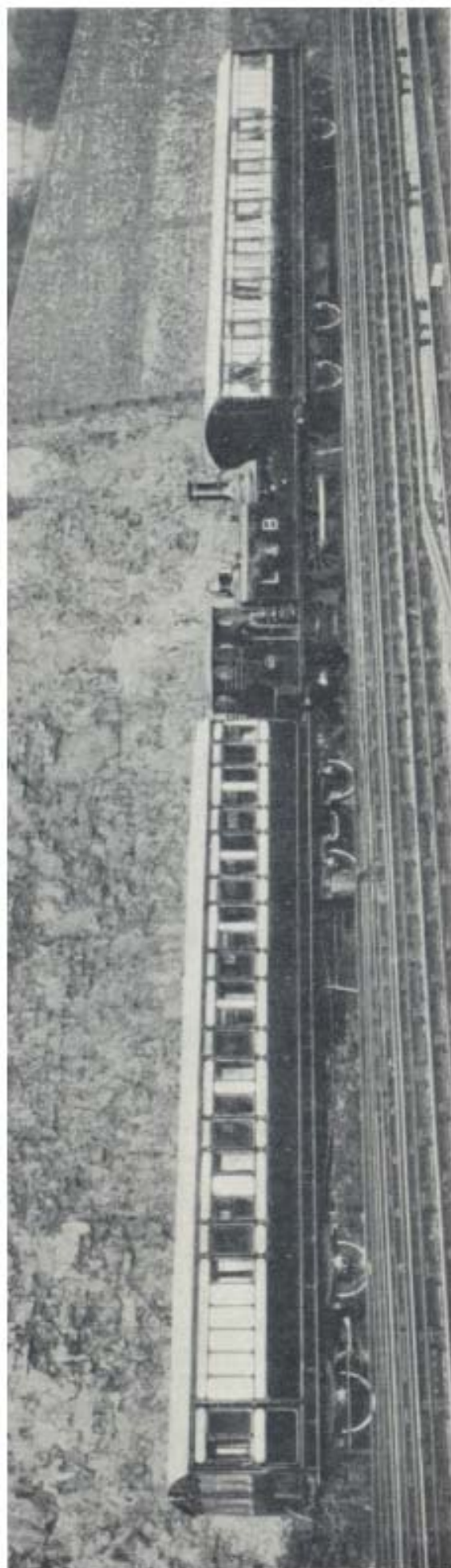
Photo] One of the last "D1s" to retain the copper-capped chimney, No. B612 at New Cross in 1926 *[O. J. Morris*

in the original design. An air brake reservoir was placed under the frames at the trailing end. With these alterations the weight was increased to 43 tons 10 cwt.

The rebuilding was a success, and the engines' work was greatly improved. They practically monopolised the London suburban services, for which their rapid acceleration and fine turn of speed made them especially suitable. It was on these duties that they achieved some of their finest performances, and even up to 1923 still took their turn on the by no means easy road, to such places as Coulsdon North, Sutton, or Dorking.

built a series of engines of practically the same dimensions as the "D" tanks. These were the "4800" class and also were used on pull-and-push work, and general branch-line duties, all over the Great Western system.

In 1910, No. 79A, formerly No. 20 and later 216, was rebuilt by Marsh and reclassified "D1x." The chief alteration was in the boiler, which was much larger than any hitherto used on these engines. It was 4 ft. 6 in. diameter, and very similar to that used on the "D3x" class 0-4-4 tanks. The smokebox rested on a saddle, and the leading sandbox was moved from the splashers to a position



A two-coach pull-and-push train worked by a "D" class tank engine at Brighton in L.B.S.C.R. days

under the frames. At the same time steam sanding was substituted for the gravity type, which was used on all the "D1s."

Because of the large diameter of the boiler, the height of the cab was increased six inches, to give an adequate lookout, while at the same time a heavy drag plate was fitted under the floor, to counterbalance the increased weight on the front end. The engine proved to be very unsteady on the road, and rolled badly. In all other respects No. 216 gave excellent results when working heavy London suburban traffic. Perhaps if the frames had been lengthened and a bogie substituted in place of the trailing wheel it would have ridden better. It was the only locomotive to be so rebuilt, but was not scrapped until 1934, as No. B216. After damage in a collision in 1920, L. B. Billinton fitted No. 248 with square side tanks similar to those used on Marsh's "I" class 4-4-2 tank engines.

The first "D1" class locomotive to be withdrawn was No. 3, *Battersea*, condemned in 1903. From the early years of the century a large amount of renumbering took place. Some of these engines had as many as four different numbers during their careers; numbers taken from scrapped engines in a few instances were given to others of the same class. By 1923, 15 of the class had been scrapped and one rebuilt to "D1x," leaving 109 in service.

During the early years of the Southern Railway, several were transferred to the Western Section for branch-line work, such as the Yeovil Junction to Yeovil Town service, and the Seaton branch. The majority stayed on the Brighton Section, however, where they did good work on the local services along the coast lines from Brighton, and also on the various lines radiating from Horsham. Horsham Depot became one of the last strongholds of the "D" tanks, and, even after the electrification of the Mid-Sussex line, still had one or two for working the Guildford, and Brighton *via* Steyning services, by then the only steam-operated lines in that neighbourhood.

During the 1930s the class suffered heavily from withdrawals, and by 1938 only 48 were left; many of these engines were by now nearly sixty years old, and it seemed then to be only a matter of a few

years before the class became extinct. The second world war and the desperate need for engines of all types certainly caused delay, although some were withdrawn during the hostilities.

In 1940, eight of the class were adapted for fire-fighting duties. The additions comprised fixing a steam-driven pump behind the bunker, and placing three long lengths of hose round the front end of the engine. On the right-hand bunker side was added a large tool box, which was used for storing various items

of tank wagons alongside the main line.

During the war years, three "D1s" (Nos. 2233, 2240 and 2286) were loaned to the War Office for use on the Longmoor Military Railway, where they were usually to be seen working on the passenger service between Liss and Bordon, duties which they shared with former L.S.W.R. "Jubilee" 0-4-2s, and two *ex*-Brighton "I2" class 4-4-2 tanks. Of the "D" tanks, Nos. 2240 and 2286 were returned to the Southern Railway in 1943, leaving 2233, which continued



Photo [J. H. W. Kent] No. 2252, formerly L.B.S.C.R. No. 252, "Buckhurst," built in 1881, leaving Brighton with a Horsham train in June, 1950. It was withdrawn shortly afterwards, the last survivor of the class to run in regular service

of fire-fighting equipment. At first the tender of any nearby engine was to provide water, but later a train of tank wagons was made available at some of the London locomotive depots where they were sent. They were kept in steam, ready to deal with any outbreak of fire, in the sheds or in the neighbouring goods and marshalling yards. Most of the depots took a great pride in these "fire engines," and kept them in spotless condition. No. 2252 became a regular sight to travellers passing through Norwood Junction, for it stood on a train

working on the L.M.R. until, as the result of a derailment at Liss, damage was suffered which led ultimately to the scrap road at Eastleigh.

In 1942, No. 2605 was temporarily transferred to the L.M.S.R. and sent to Ayr, where it acted as station pilot. On one occasion, this engine was used to pilot a Stanier class "5XP" 4-6-0 on an express between Ayr and Girvan. No. 2605 was returned to the Southern Railway in 1944, probably the most widely-travelled of all Stroudley's "D" tanks.

During the summer of 1948, the "D1s"

staged something of a come back, to main-line duties, for during that year the 6.34 p.m. from East Croydon to Tunbridge Wells West (the rear portion of the 6.10 p.m. from Victoria) was regularly hauled by an engine of the class. Their use on that train lasted only for a short time, but it speaks well for the design, as well as for the workmanship of these little engines, many of which were then nearly 70 years old.

By 1949, the only survivors of the class were nine engines, five of them fitted for pull-and-push working, and one which had been converted for oil pumping in 1947, and numbered 701s in the service

stock. This engine was withdrawn in 1950 and, in the same year, No. 2252, the last of the class to run in regular passenger service was also withdrawn.

The story of the "D" tanks does not end until July, 1951, when No. 2359 was sent to Ashford works for scrapping. This engine had for some time been used as a stationary boiler at Dover, and in this rather humble role the last "D" tank was condemned. Thus ended the career of a class of engines, which although not enjoying the limelight given to the "Terriers" or the publicity of the famous "Gladstones," still carried on the fine traditions of William Stroudley.