



steamsounds *Riding behind GWR steam*

Castles & Kings

By the early 1920s the Great Western Railway's steam locomotives were generally considered to be among the finest in the world and the developments introduced by G. J. Churchward had culminated in his Star Class of 4 cylinder 4-6-0s, the last of which entered service in 1922, the year in which Churchward retired.

When C. B. Collett, who had been assistant to Churchward, took over as CME there was seen to be a need for a more powerful 4-6-0 so Collett set about designing an improved version of Churchward's Stars.

This improved design was the Castle Class which, when the first of the class emerged from Swindon in August 1923, was the most powerful locomotive in Great Britain.

Castle Class locomotives continued to be built for another 27 years, the last emerging from Swindon in 1950 under the auspices of British Railways. Later examples were further improved by British Railways with the addition of a double blastpipe and chimney and improved superheating.

Castles put in some excellent work, particularly on the main line to the West Country and that is where our first recording was made.

1. In 1985 celebrations took place to mark the 150th Anniversary of the Great Western Railway and among those celebrations was supposed to be a series of 6 trains running between Bristol & Plymouth. Sadly, things didn't quite go as planned with the westbound trains when the first train from Bristol got no further than Exeter, both locos having succumbed to hot axle boxes. A second train got a little further but expired on the climb to Dainton. On the other hand, trains running eastbound didn't suffer the same sort of problems and for this track we are taking a ride on the Great Western Limited which ran from Plymouth to Bristol on 8th September 1985.

The main interest on this route was, of course, how the locos would perform over the notorious, very steeply graded South Devon banks.

Trains on this route were often hauled by Castles but if the load was a heavy one, a pilot engine would usually be provided to assist as far as Newton Abbot but on this occasion we were doubled headed throughout with not one, but two Castles; 5051 *Dryslwyn Castle* (which has also carried the name *Earl Bathurst*) piloted by 7029 *Clun Castle*. *Clun Castle* was built in 1950 and was rebuilt in 1959 with a double chimney and 4 row superheater while *Dryslwyn Castle* dates from 1936 and was never rebuilt.

Even a load of over 400 tons should have been no problem for this powerful combination and so it proved.

This recording was made early in the journey and as it begins the pair are heard passing Plympton at the foot of Hemerdon bank at about 30 mph.

The two Castles are soon on the gradient which begins at 1 in 41, eases slightly to 1 in 47 for a short distance then continues at 1 in 42 to the summit just before Hemerdon Sidings signal box. Speed falls on the climb but the pair are easily able to maintain speed above 20 mph before the top of the climb is passed.



Castles & Kings

2. Great Western locos are noted for a number of particular features but if you ask a sound recordist what is particularly notable about them and the answer you will get is, 'They make plenty of noise!'

On 16th April 1983 motive power for the Welsh Marches Pullman was 5051 *Dryslwyn Castle* which it worked from Hereford to Newport and back.

One drawback affecting Great Western locos on this route were a number of bridges under which the clearance wasn't deemed sufficient to allow safe passage at full line speed. The worst of these was not far south of Abergavenny at Penpergwm located right at the start of a 1 in 80 climb towards Nantyberry.

After a very high speed dash down from Llanvihangel and through Abergavenny it was unfortunate that our driver misjudged the braking a little and almost brought the 12 coach train to a stand at the bridge but just listen to the noise as 5051 recovers speed on the gradient.

From almost as standstill 5051 does well to accelerate this almost 500 ton load to over 30 mph before passing Nantyberry where this recording ends as the regulator is shut ready for yet another low bridge.

See what I mean about Great Western engines being loud?

3. On 8th September 1984 the Great Western Society ran a train from Paddington to the Severn Valley Railway.

Steam haulage began at Didcot with our favourite GWR noisemaker 5051 *Dryslwyn Castle*.

The load was 10 coaches and the train carried the name *The Castle Jubilee* as we would be returning hauled by the Jubilee 5690 *Leander* which was to spend some time at the Didcot Railway Centre while 5051 was on the Severn Valley Railway.

This recording is of the start of the journey and begins as 5051 departs from Didcot, ending as we arrive at Oxford and the noise is almost continuous. Despite all the noise we only reached a maximum speed of just 56 mph.

I recall that the loco made plenty of noise for the rest of the journey north but didn't achieve very much in the way of performance. Indeed, it wasn't until well beyond Banbury, almost 50 miles from Didcot that we first attained 60 mph. Mind you, while those on the train interested in locomotive performance weren't particularly impressed I heard no complaints from the sound recordists!

4. As I have mentioned elsewhere, in 1985 Great Western locos suffered from some very mixed fortunes and at times those of us who travelled regularly became somewhat disillusioned but if we felt in need of something to restore our faith in Great Western motive power, the Red Dragon, run on 20th July 1985 with steam haulage from Shrewsbury to Newport and Worcester by 7029 *Clun Castle* was just the thing!

Under normal circumstances the climb from Shrewsbury up to Church Stretton was often taken pretty easily. With a loco not yet fully warmed up this was probably a good move.



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Castles & Kings

However, on this occasion, we soon realised that our driver was not going to hang around. After a maximum speed of almost 50 mph on the easier gradients approaching Dorrington we settled down to continue with speeds steady in the low 40's all the way up the 1 in 100 gradients to Church Stretton, an excellent performance with a 9 coach load. This recording starts soon after passing Dorrington and ends at Church Stretton.

C. B. Collett's King Class locomotives were the final and most powerful development of the Great Western Railway's 4 cylinder 4-6-0s and, when first introduced, were the most powerful express passenger locomotive in Great Britain.

The first of the class emerged from Swindon in June 1927, numbered 6000 and named after the then reigning Monarch, King George V. In August of the same year the locomotive was shipped to America to appear at the Baltimore & Ohio Railroad's Fair of the Iron Horse, part of the B&O's centenary celebrations. While there, the locomotive was presented with an inscribed bell to mark the visit.

Between 1927 and 1930 28 further locomotives were built and proved their worth hauling express passenger trains, particularly over the steep South Devon banks to Plymouth.

Originally built with single chimneys and a moderate degree of superheat, in the 1950s British Railways modified the class adding a double blastpipe and chimney and increasing the degree of superheating; this considerably improved performance.

The first of the class, *King George V*, was withdrawn by the Western Region of British Railways in December 1962 but was preserved and restored at the Bulmer's Railway Centre, Hereford. After British Railways finished with steam locomotives in 1968, 6000 was one of the first locomotives to return to main line running in the early 70s and it is this locomotive that we will hear in the next track on this CD.

5. Being based at the Bulmer's Railway Centre in Hereford 6000 *King George V* was a regular performer on the Welsh Marches route between Shrewsbury and Newport. This route was always popular combining the opportunity for some fast running, some steep gradients to climb, passing through some very pleasant scenery, something for everyone in fact, and this popularity lead to some very heavy trains being run

The Welsh Marches Express on 24th March 1984 loaded to no less than 13 coaches giving a weight around 500 tons for *King George V* to haul from Hereford to Newport and back.

During the return journey from Newport we stopped at Abergavenny for photographs. This meant that the restart would be a difficult one with a 1 in 85 gradient which begins immediately off the platform end.

If there's one thing that Great Western engines are noted for it's being surefooted and, as you can hear, 6000 makes a very positive start away from Abergavenny.

With 13 well filled coaches behind the tender the climb to the summit at Llanvihangel isn't going to be a really fast one but 6000 does well to complete the difficult climb in a little



Castles & Kings

over 11 minutes with speed in the mid-20s throughout. A very respectable performance considering the gradients and the load.

6. As mentioned above, the Kings were built to work express passenger trains on the GWR's main line to the West Country, a route which required locomotives capable of working heavy trains over the steep gradients of the South Devon banks west of Newton Abbot. 1985 saw the celebrations to mark the 150th Anniversary of the Great Western Railway and as part of those celebrations, steam hauled trains ran between Bristol & Plymouth - at least, that was the intention.

Although a number of trains ran from Plymouth to Bristol, I never managed to travel beyond Totnes steam hauled (and getting that far required diesel assistance!).

So it wasn't until 1998 that I finally managed a westbound run over the Devon banks. That was on 9th May 1998 when 6024 *King Edward I* worked a train from Bristol to Par in Cornwall. The load was 9 coaches, typical of the kind of load that a King would have taken on the fastest schedules over this route in steam days.

The really steep gradients on this route aren't encountered until after Newton Abbot which is where we hear 6024 departing as this recording begins.

A mile away is Aller Jc. and the gradients up to this point are easy but a little after the junction the climb to Dainton Tunnel begins.

6024 reaches a little over 40 mph before starting on the climb but then speed falls quickly. The climb begins at 1 in 98 but soon steepens, the steepest gradient being a short section of 1 in 36 just beyond Stoneycombe Siding. Speed falls to a minimum of 25 mph but eventually Dainton Tunnel, the top of the climb, is reached.

7. We are still on the same train hauled by 6024 in this next recording made not long after the last one

After the steep and sinuous descent from Dainton Tunnel we are passing through Totnes at the foot of the next of the banks; the climb to Rattery. Although longer than the climb to Dainton Tunnel the gradients are not as steep and we do have the advantage of getting a run at it!

After passing through Totnes station at around 50 mph, 6024 is soon working hard on the gradients, the steepest being 1 in 46 though generally gradients are less steep than 1 in 50. The steepest part of the climb comes before Tigley signal box about 2½ miles from Totnes. Beyond there the gradients are a little easier.

Speed falls to 27 mph before Tigley but then begins to rise again before passing Rattery signal box and entering Marley Tunnel. An excellent performance from 6024.

8. Kings weren't just built for their capacity to take trains up steep gradients, they were also built for speed!

In this track we are riding behind 6024 once again, this time on a train running from Newton Abbot to Swansea on 25th February 1995.

Although we had travelled faster on occasion, until 1994 the maximum officially permitted



steamsounds *Riding behind GWR steam*

Castles & Kings

speed for steam locomotives running on the main line was 60 mph. To enable steam hauled trains to be more easily pathed among other service trains there had been moves afoot to raise the speed limit for certain locomotives and by the beginning of 1995 6024 was among those permitted the higher maximum speed of 75 mph.

Between Exeter and Bristol we had already had a taste of high speed running but once we were through Newport and Cardiff no-one really expected anything more than we had already had.

As this recording begins 6024 is just beginning to recover after the 20 mph speed restriction through Bridgend station and is beginning to accelerate into the 3 mile climb to the summit at Stormy Siding.

The gradients here aren't all that severe, 1 in 132 leading to 1 in 163 and 6024 is able to accelerate to 50 mph at the summit. So far so good!

Once over the summit we could have reasonably expected the driver to close the regulator and let gravity do the work on the falling gradient through Pyle to Margam Moors but no, the regulator stays open and our speed rises rapidly.

As I've said, the maximum speed for 6024 was 75 mph so it's probably best if I just say that we soon reached that figure but bingo fans will know what I mean if I tell you that, had two fat ladies been standing by the lineside, it would have been quite appropriate!

9. On 26th September 1987 6000 *King George V* worked a train from Swindon to Shrewsbury and back to Hereford.

This train was titled *The Royal Sunset* and was to be the King's last main line run before requiring an extensive and expensive overhaul to enable it to return to the main line. At the time, there was some doubt whether this work would be done and that would mean that this was going to be the King's last ever main line run.

We'll end this collection of recordings with the sound of 6000 *King George V* at start of this final journey departing from its birthplace 60 years before.

STEAMSOUNDS *Riding behind GWR steam*
Castles & Kings

1. 7029 & 5051 climbing Hemerdon Bank.
8th September 1985
2. 5051 from passing Penpergwm to near Nantydarry.
16th April 1983
3. 5051 departing from Didcot to arriving at Oxford.
8th September 1984
4. 7029 from near Dorrington to passing Church
Stretton. 20th July 1985
5. 6000 departing from Abergavenny to passing
Llanvihangel. 24th March 1984
6. 6024 departing from Newton Abbot to Dainton
Tunnel. 9th May 1998
7. 6024 from passing Totnes to Marley Tunnel.
8. 6024 from passing Bridgend to near Margam Moors.
25th February 1995
9. 6000 departing from Swindon 26th September 1987