**The GWR MICA A/B Vans**

*notes by Gareth Price*

The GWR MICA A/B Vans I would consider to be one of the Great Western Railway’s most famous wagon designs. Built between 1889 and 1930, these vans with their iconic white bodies and red lettering or standard GWR Freight Grey livery could been seen working around London or across the UK transporting meat to where it was required...

The first GWR meat vans are believed to be eight broad-gauge iron third-class (one second-class) six-wheel carriages that were converted in the mid 1860s for the South Devon Railway. These were eventually taken over by the GWR who altered and renumbered them and they were in use until May 1892 when they were condemned.  The GWR also had several meat vans dating from the 1870s that were similar to the GWR outside-framed vans of the time and these were scrapped around 1910.

The basis for what would become the GWR MICA comes from 13 vans that were inherited from the South Wales Railway. These vans were allocated under diagram X3 and the refrigeration practices such as ice containers would be used on future GWR meat vans. All were condemned by 1914.

The first GWR meat vans were built in 1889. These were classed as ‘ordinary’ meat vans as these were just ventilated vans that were used for carrying meat and had no ice provisions. This diagram (X1) set the standard for the X2 and X4 diagrams, with characteristics such as horizontal double-cased tongued and grooved planking, flush fitting doors and hinged wooden bonnet vents across the top ends of the vans.

In 1897, the first GWR designed refrigerator vans for chilled meat were introduced and these were classed as X2. These vans were built with ice bunkers at each end. This is also where the GWR telegraph code ‘MICA’ is first introduced. One lot of the vans was built with neither end ventilators nor side louvres. These were classed as ‘MICA. A‘ and were refrigerated but non-ventilated vans. The others were classed as ‘MICA. B’ and were ventilated. MICA. A/B bodies were painted white with red lettering, whereas ‘MICA’ would be painted onto the standard GWR Freight Grey livery.

From around 1907, the ice tanks were extended upwards and rubber-sealed trap doors were provided in the roof where the ice could be dropped in. This is also where the steps and commode rails first appear. The tanks were also separated into compartments; the top ones for ice and salt and the bottom ones for brine along with valves for draining. The vans built to this diagram were classed under X4.

Prior to 1910, the design of the X1/2/4 vans was a van built on a 16ft underframe with a wheelbase length of 10ft and the wheels were ‘Mansell’ coach wheels. They were fitted with Armstrong vacuum brakes, clasp shoes, 2ft buffers and screw couplings.

Between 1910 and 1912, the X5s were introduced and this would set the basis for the future X7 and X8 diagrams. The Mansell wheels were replaced with standard wagon wheels, end handrails would receive a slight realignment and vacuum layout was replaced by the DC Mark III system.

No MICA Vans were built during the First World War, but in 1918 to help with the need for insulated vans, the GWR would convert 300 V16 ‘Mink A’ Goods Vans. These were allocated under the X6 diagram with the telegraph code ‘MICA. A’. However from June 1921, the 300 X6 vans would be converted back to goods vans or rebuilt into the Y4 Banana Vans.

As mentioned previously, the X7 vans built in 1921 took on several characteristics of the earlier X5 diagram but also improved on the design as well. The vans would be built with self-contained buffers and incorporated a new door-locking mechanism that would replace the earlier locking system. Rubber seals were also provided.  Between 1923 and 1926, the X8 vans were built and followed the X7 vans in design but were fitted with Morton brakes. The next stage was the GWR X10 which followed the X8 diagram but had no end vents. The final design was built in 1930 and was classed under the X9 diagram. Like the previous X10 build, these vans also did not have end vents. The body too was basically a stretched X10 with just the ends receiving one commode rail and set of steps at each end. This diagram would also be the only one which used a 17ft 6in RCH underframe.

**Rebuild and decline**

By the late 1930s, the meat traffic was being carried either by road vehicles or in containers on GWR Conflat Wagons. In 1938, the GWR rebuilt forty-one redundant MICA vans into vans for Messrs Lyons tea traffic at Greenford and Messrs J.S. Fry & Son’s cocoa traffic at Keynsham.

With the exception of the former South Wales X3 and X6 vans, MICAS from all the diagrams entered into Nationalisation. Prior to Nationalisation in 1942, many of the older vans were fitted with interior slings for dry-ice bags.

As for the ‘MICA’ telegraph code, this would disappear in the Second World War and be replaced by ‘MEAT’. The MICA A and B vans were given a given a code depending on whether they were insulated or ventilated vans. For insulated vans, they became ‘INSUL-MEAT’ and ‘VENT-INSUL-MEAT for ventilated examples.

A few GWR MICA vans would last until the early 1960s and a lucky few would be purchased by the Port Authorities for use on the docks. Preserved GWR X8 MICAs 105873 and 105916 would be purchased from the Port of Bristol Authority.

**Preservation**

Preservation wise, five GWR MICA Vans, one X4 and X5, and three X8s have been preserved. A GWR X7 also exists but this van (GWR V31 79933) remains in its GWR Tevan form at Didcot Railway Centre. The preserved MICAs include:

* GWR X4 79740, approx build date 1912. Resident at the South Devon Railway.
* GWR X5 79636, built in 1910 and resides on the Gloucester and Warwickshire Railway.

As to the GWR X8 MICAs, all three sisters belong to the GWR 813 Preservation Fund and can be found at the following railways:

* GWR 105860, Didcot Railway Centre. Currently awaiting overhaul and is kept undercover in Didcot Railway Centre’s Carriage Shed.
* GWR 105873, Severn Valley Railway. One of the Valley’s most iconic wagons and returned to traffic in 2012 following an extensive overhaul and is regularly seen in demonstration goods trains. Is also famous as she took part in the 1985 GWR 150 celebrations where she and 24 other SVR wagons ran in a demonstration goods train between Kidderminster and Newport with SVR resident loco, GWR 2857.
* GWR 105916, South Devon Railway.

**Modelling**

Modelling wise, the GWR MICA has appeared in N, OO and O gauge. For OO modellers, the first ‘ready-to-run’ model appeared with Wrenn in the 1980s. The Wrenn model was released in several liveries which included its iconic GWR white body with red lettering and rather odd ‘Private Owner’ liveries. Whilst based on the GWR X7 and X8 diagrams, the body was stretched to fit the Wrenn 10ft wagon chassis.

Kit wise, OO modellers have more choice of what MICA to work with. Falcon Brassworks offers the X1 and X2, David Geen the X2, X4 and X5 and Perseverance offers the X2. (David Geen kits are no longer available unfortunately.) In 2013, Parkside Dundas released their plastic GWR MICA X7 kit into their wagon range and this can be also used to represent the X8 diagram. To modellers who wish to model the short-lived X6 diagram, Parkside Dundas’ kit of the GWR Y4 Banana Van offers the choice to make the kit into the X6. Lastly the 3D Printing Company, Stafford Road Model Works offers a GWR X9 MICA body along with a GWR V32 Tevan body and these can be fitted onto a Dapol or Wrenn/Hornby Dublo wagon chassis.

For the O gauge modeller, the GWR MICA has only appeared as a kit. For an X2 and X4, these can be purchased from WEP Models. Scorpio Models offers the X7, X8 or X10 and lastly Parkside Dundas offers the X9 diagram. For the N gauge modeller, the N Gauge Society offers a GWR MICA Van kit which can be built to represent two variants and these fit onto the provided Peco 10ft chassis.

**Resources**

The book GWR Goods Wagons by A. G. Atkins, W. Beard and R. Tourret (or the ‘Bible’, as I like to call it) provides a very extensive chapter on the history of the GWR MICA A/B Vans.