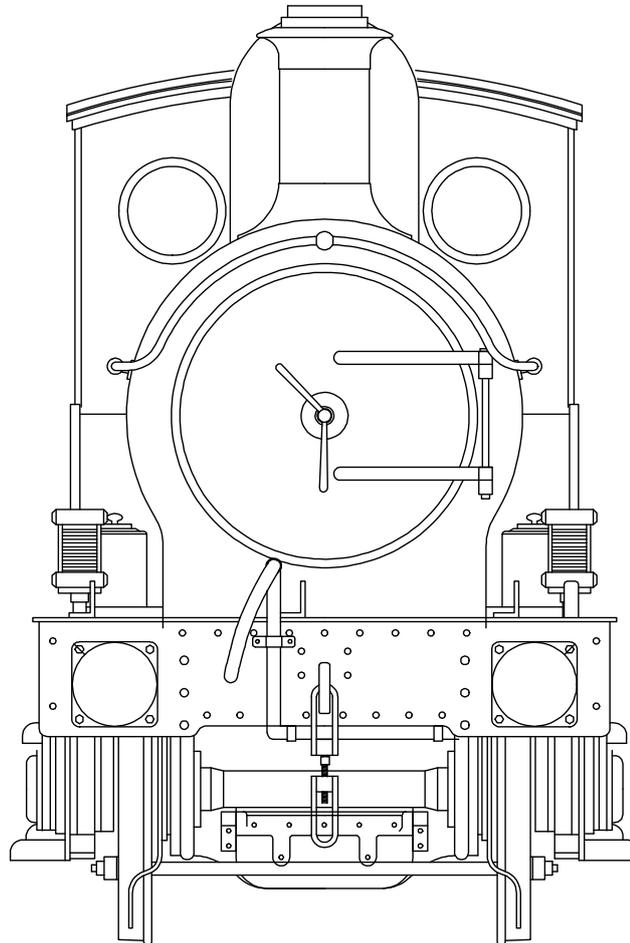


## GWR 3232 CLASS LOCOMOTIVE



### **CAUTION.**

This product contains etched parts with very sharp edges and castings that may contain lead. Neither the Manufacturer, Distributor or Retailer can accept any liability for illness, injury or consequential damage caused when handling or building this product.

Read any instructions before assembly. Do not eat or drink whilst handling. Wash hands after use.

## BRIEF HISTORICAL DETAILS

For a detailed history of this the last completely new class of 2-4-0 tender engines built at Swindon, Part Four of 'The Locomotives of the Great Western Railway' published by the RCTS is essential reading.

Engine Nos.	Works No.	Lot	Date Built
3232-3241	1341-1350	90	1892
3242-3251	1381-1390	93	1893

The design of the kit used the following Swindon frame plan drawing 10129 5/1892 Lot 90/93.

The two lots appear to differ only in the arrangement of the front end framing. This affects the guard iron struts and the length of the bracket attaching the outside frame to the buffer beam. Parts are provided to allow these differences to be modelled.

The original boilers were of the 'Sir Daniel' class with the dome on the front ring (S2) with a very short smokebox. They were first reboilered with similar boilers with extended smokebox or with back dome versions of the same class (S4). All were eventually fitted with boilers with a Belpaire firebox of two quite different types, either a 'Standard Goods' (B4c) or the 'Sir Daniel' (B4).

The kit provides for the S4 and B4 boilers. To make an engine in as built condition is not difficult, a new boiler wrapper and smokebox wrapper will be needed and the S4 wrappers can be used as templates. To make an engine with the B4c boiler is, however, much more difficult as the boiler was pitched some 5" higher necessitating new smokebox, firebox and cab.

There are also many detail differences both between individual engines and as the class changed through time. For an accurate model it is important that photographs of the prototype are used and a list of sources is below.

The variations apparent from studying photographs are:

- Differing rivet patterns, mostly allowed for.

- The removal of the brass beading. The splasher fronts and tops and the coupling rod splasher fronts and tops are produced with and without beading.

- The fitting of top feed to the B4 boiler, two different boiler wrappers are provided.

- Differences in the cab front, two are provided with the different sizes of spectacle windows.

- Differences in the cab roof, both the early canvas covered wooden roof and the later steel roof are included.

- The kit also contains a complete set of cab side numerals so that any member of the class can be constructed.

## Sources of Photographs

A Pictorial Record of Great Western Engines, Vol 1, OPC (Note the drawing on p57, fig 147 is for the 3232 class and not the 22XX class as stated)

The Locomotives of the Great Western Railway, part 4, RCTS.

GWR Locomotive Allocations 1921, Wild Swan

GWR Engine Sheds - London Division, Wild Swan

Didcot, Newbury and Southampton Railway Supplement, Wild Swan

Great Western Portrait 1913, 1921, OPC

Great Western Steam Through The Years - 2, Bradford Barton

Great Western Album Number 2, Ian Allan

Cambrian Railways Album - 2, Ian Allan

LCGB, Ken Nunn Collection

Photomatic

HMRS collection

## TENDERS

When built the locomotives were fitted with new standard 3000 gallon tenders although there is a photograph of 3251 fitted with a second-hand Armstrong sandwich framed tender. Later some of the class acquired standard 2500 gallon tenders.

## CHASSIS OVERVIEW

Note that many of the components for both chassis and body are handed left/right and care must be taken to ensure the correct component is used. Components are not always identified left/right separately but with care and common sense no problems should arise.

Before construction can commence you have to decide which particular chassis you are going to construct. The options are:

### Gauge.

For Finescale, where little sideplay is required, the widest spacers can be used but they will need careful filing to make their width 26.0 mm. If you require your engine to negotiate sharp curves then the middle width spacers should be used.

The widest frame spacers supplied are suitable for Scaleseven and care will be needed to allow sufficient sideplay, especially in the leading axle to enable the model to negotiate moderate curves.

### Suspension.

**Rigid.** The kit is supplied with top hat bearings to build a rigid chassis. Open out the main axle holes to accept top hat bushes and solder them in place. If the leading axle is 5/32" diameter then reduce the bearing diameter accordingly by fitting a sleeve from short lengths of the 3/16" tubing provided.

**Sprung.** If you are going to fit sprung horn blocks, you should open out the frame slots by cutting up the half etched lines and follow the manufacturers instructions.

**Compensated.** The simplest and most reliable suspension system is beam compensation and the necessary compensation beams are provided in the kit. Not provided are the hornblocks and bearings which are available as an extra item which includes instructions for aligning the hornblocks accurately.

**Pickups.** No pickup material is provided. The options are:

**Scrapers.** Attached to the middle frame spacer using printed circuit board.

**Plunger.** Open out holes P and fit according to the manufacturers instructions. It may not be possible to use plunger pickups if you wish to fit the inside motion because they may foul each other.

**Split axle/frame.** We leave this to you! Some useful information can be found at <http://www.euram-online.co.uk/tips/splitaxle/splitaxle.htm>.

## COMPONENTS NOT SUPPLIED

### WHEELS

Driving wheel - 6' 8½", 24 spoke, 3/16" diameter axle (2) Slater's Ref.7881W

Leading wheel - 4' 1½" diameter, 12 spoke, 3/16" diameter axle Slater's Ref.7849

### MOTOR/GEARBOX

A Canon motor with a SDMP 40L/15 gearbox (available from Finney7) or an alternative such as an ABC VML2 gearbox.

### CRANKPINS

Steel crankpins are available from Finney7.

### INSIDE MOTION

A separate kit is available from Finney7 to construct the working inside motion.