GWR 5600 Class

Contents

Introduction

Congratulations on your purchase of the Great Western/Armstrong Whitworth 5600 class 0-6-2 locomotive. We trust it will give you many years of trouble free mixed haulage.

Background

The origins of the 56xx class locomotive lie not with the Great Western Railway at all, but with the numerous south Wales Railway companies that once served the coal mines of South Wales. One of the popular configurations of locomotives used there was the 0-6-2 configuration, which was discovered to confidently handle the sharp curves so prevalent in the area. One of the more typical examples was the M and R class locomotives of the Rhymney Railway, which were arguably the original 'Taffy Tanks' of fame.(The 56xx class never had this title). Many other railways in the area used very similar machines from a multitude of different manufacturers, most notable among them being Stevenson, Manning Wardle and Beyer Peacock.

In 1922, the British Government decided to 'group' the numerous small Railways in Britain into larger ones. The grouping resulted in 3 other companies that are still familiar today, the LMS, LNER and Southern. The Great Western survived grouping almost unchanged, but what it did gain included the Railways of South Wales, including the well proven R and M class. Unfortunately it would appear from some reports that grouping was not the completely happy experience historians would have you believe. Legend has it that a number of GWR boiler inspectors turned up en mass in south Wales condemning locomotives for having poorly maintained boilers, machines that for the most part still had years of useful life left in them. Some were reengineered to take Swindon boilers. These turned out to have long lives; one of them was noted to still be shunting stock at Banbury in the 1950s.

Almost all the Taffy Tanks are now long gone, other than two machines built for the Taff Vale Railway. No28 was built in 1897, became GWR No450 in 1922, sold off in 1926 to Longmoor military railway, sold to the National Coal Board after the war, and was finally withdrawn in 1960. It has been undergoing a lengthy and problematic restoration on the Dean Forest Railway, not so very far from its original home. Another survivor is Taff Vale No.85, which survives far from its original home on the Keighley and Worth Valley Railway, recently in operating condition. Both give good indications of the machines the Great Western sought to replace, and perhaps suggest that replacing them in the first place was not at all necessary. As far as known, both still keep their original boilers.

Suddenly beset by the loss of a considerable number of locomotives from the newly grouped Railway companies, the Great Western was belatedly realizing that it had set itself the job of replacing them. The relatively easy option of replacing them with large and small prairies, or even the famous Pannier tanks, appears not to have occurred to them despite two Large Prairies that had been loaned to one South Wales depot receiving very high praise for its power and

performance. It was decided instead to replace the locomotives with a 'taffy tank' of Great Western design. It would be fair to say that the 5600 class as it was eventually known, whilst eventually a success, had a long and fairly tortuous development. Those of a less fair disposition have called its introduction 'a disaster'. Despite passing the test in England with flying colours, when the class was transferred to their soon-to-be familiar stomping ground in south Wales, they were beset by numerous failures, the most common of which was hot axle boxes. Eventually new machines being built in Swindon had to be put into store, whilst those failed in South Wales were examined for some explanation of the problem. Ironically it was the former Rhymney Railway's Caerphilly works who found the solution to the problem, and even more ironically the famed Great Western high tolerances had been the problem. Going around sharp bends, the axle boxes did not have as much 'play' in them as South Wales built ones, hence friction had been much higher. The cunning Welsh had created far wider tolerances in their boxes because they already knew of this problem. The Director of Works sent a strongly worded letter to Charles Collett, Chief Mechanical Engineer of the Great Western Railway, praising him for the high quality of the design but adding criticism for building a locomotive unsuited to the lines they were meant to work on. The reply of the Great Western is not recorded but clearly they took note of the solution and revised drawings were issued.

One should not be too critical of poor Collett. He had to come up with a design in a hurry, and his previous design, the Castle Class, and latterly the King, had very little to criticise about them at the time (and still do not over 80 years on). Whilst some aspects of the initial design of the 56xx series proved to be unwise (the removal of the frames to access the springs proved tiresome if not hazardous to those servicing them) on the road they proved to be powerful enough machines, and numerous photos exist of them pulling in excess of 40 wagons (one suspects more than 50 would have not been uncommon) without much in the way of apparent problems.

If they had a flaw it would appear that those driving them preferred them in reverse, where the bogie truck was able to guide them around tight bends. In fact from photographs it would appear the preferred method was to drive them uphill forwards when lightly loaded, and coast down hills in reverse whilst loaded, presumably to better control the most unfortunate aspect of the configuration; the tendency to derail. How serious this problem was in service, or how much was due to the relatively threadbare nature of the Welsh railway network at the time is very hard to tell, but the longevity of the design (introduced in the late 1920s, worked very hard during WW2, and not withdrawn from service until the 1960s) speaks for itself.

Some sources reported that the 5600 series were guilty of excessive buffeting of passenger stock, but if this is true one suspects this may contribute to their popularity on preserved railways! It is interesting to note however that the 0-6-2 configuration was not used again in Great Western designs, and that when the time came to replace the earliest examples after WW2, it was a modified version of the 57xx that they turned to fitted with a new boiler (called 94xx). It was only the disorganised nature of British Railways that scuppered such plans, and the 56xx were kept in service till the dawn of dieselization in South Wales.

That the design can eventually be seen as a success is to the credit of those who used and maintained them and whilst not really 'Taffy Tanks', they exemplify the Great Western in South Wales better than any other design.

There are 9 survivors, most of which came from the famous Barry scrap yard. They prove popular, powerful performers on preserved Railway lines, and remind us of a time when the country to no small extent depended on South Wales coal.

Total production of the 56xx class numbered 200 machines, built mostly by the Great Western, but the last 50 in the 6650 - 6699 series were built by Armstrong Whitworth. These later had to be modified due to noisy brakes, but otherwise seem to have performed identically to Great Western built machines.
There was little visible external difference between any of the batches, though the most obvious was the use of taper buffers on the early series, later machines being fitted with parallel buffers. There were also weights fitted in at least some of the batches, presumably to stop derailments, and this has made it very difficult to determine exactly how much one of these machines weighed; there are at least five separate figures given depending upon the source. The specifications included are those cited by the Great Western Railway archive.

Specifications

Cylinders	Two 18 x 26 inches
Driving wheel diameter	4 feet 7½ inches
Trailing wheel diameter	3 feet 8 inches
Tractive Effort	25,800 pounds
Boiler type	No. 2
Boiler maximum diameter	5 feet 0½ inches
Boiler minimum diameter	4 feet 5 1/8 inches
Fire tubes, no. and diameter	218 x 1 5/8 inches
Flue tubes, no. and diameter	6 x 5 1/8 inches
Superheater tubes	36 x 1 inch
Boiler pressure	200 lbs/square inch.
Boiler length	11 feet 0 inches
Area of fire grate	20.35 square feet
Heating surfaces, tubes	1,144.94 square feet
Heating surfaces, firebox	121.8 square feet
Heating surfaces, superheater	82.2 square feet

There are differing reports on weight but approx.
5600 Class, 68 tons 12 cwt
6600 Class, 69 tons 7 cwt

Rolling Stock

GWR 56xx
Available with tapered or parallel buffers, Shirt Button, GWR or Great Western logo.

BR 56xx
Available with pre or post 1956 logo.

GWR wagons/vans as follows:

6ton Fruit 'A' Van (Y.2)
8ton Cattle Wagon (W.5)
- Cows, with sound
- Goats, with sound
- Sheep, with sound
- Empty

10ton Fruit 'B' Banana Van (Y.5)
10ton Covered Goods Van (V.4)
10ton Fish Van (S.2)
10ton Gunpowder 'Cone' Van (Z.2)
10ton Linoleum Wagon (O.7)
- with Tarpaulin

10ton Open 'A' Goods Wagon
- with Tarpaulin

10ton Ventilated 'Mink A' Van (V.16)
12ton China Clay Wagon (O.13)
- with Clay

12ton Conflat 'A' Wagon (A.7)
- with 3 wooden and 2 metal GWR containers

12ton Motor Car 'Mogo' Van (G.43)
13ton 3 plank Open Goods Wagon (O.35)
- with Lumber
- with Tarpaulin

13ton Open Goods Wagon (O.23)
- with Gravel
- with Bricks
- with Tarpaulin

15ton 'Open C' Wagon
- with Pipes
- with Tarpaulin

Scenarios

All scenarios are for the Class J94 ‘Memories of Maerdy’ Loco Add-On by MeshTools, available on Steam.

An introduction to the 56xx - 10 mins
A brief tutorial about the 56xx cylinder cocks and their correct usage and also a chance to freely try out any of the features of the locomotive.

Coals to Wales Part 1 - 40 mins
It is a wet morning in Wales in September 1952. Your first task this morning is to take ex-Great Western locomotive 5658 down to the factories at Pontygwaith and collect the empty coal wagons there. These are to be taken back to Maerdy Colliery. The run down is on a steep downward gradient where you will need to ride the brake and control your speed while trying to reign in the 5600's prodigious boiler. The run back will take all of your skill to conquer the inclines with a train weighing over 250 tons.

Coals to Wales Part 2 - 45 mins
After bringing the empty wagons from the Pontygwaith factories to Meardy you need to pick up a consignment of coal and take it to Cardiff. The weather has turned bad but things can't get any worse, can they?

Separate the sheep from the goats - 30 mins
Somebody has made a mess and it's your job to fix it!
Shunt the cattle wagons containing sheep from a mixed train of sheep, goats and empties and then take them to the farmer who owns them. On the upside, it's not raining today!

Wet Wednesday - 30 mins
Useful as a freight engine and also a passenger engine, today you're tasked with driving 5628 and the morning passenger service from Porth to Maerdy. Oh, and it's also raining!

Control Modes

There are 3 ways to drive the 56xx.

Simple Mode
This is selected using the menu in Train Simulator and provides a simple stop/go, forwards/backwards set of controls.

Standard Mode
This is the default mode if you choose to drive in Expert mode using the Train Simulator menu. The locomotive will operate with more complex controls and can be driven just using the HUD or an Xbox controller.

Advanced Mode
This is an advanced mode for those who want a more realistic experience and introduces features such as condensed water in the cylinders, overfilling the boiler, prototypical brake operation and steam leakage and accurate notching of the reverser. To achieve these extra functions using a keyboard is required.
To enter Advanced Mode you can press Control A at any time, and this will also turn it off again.

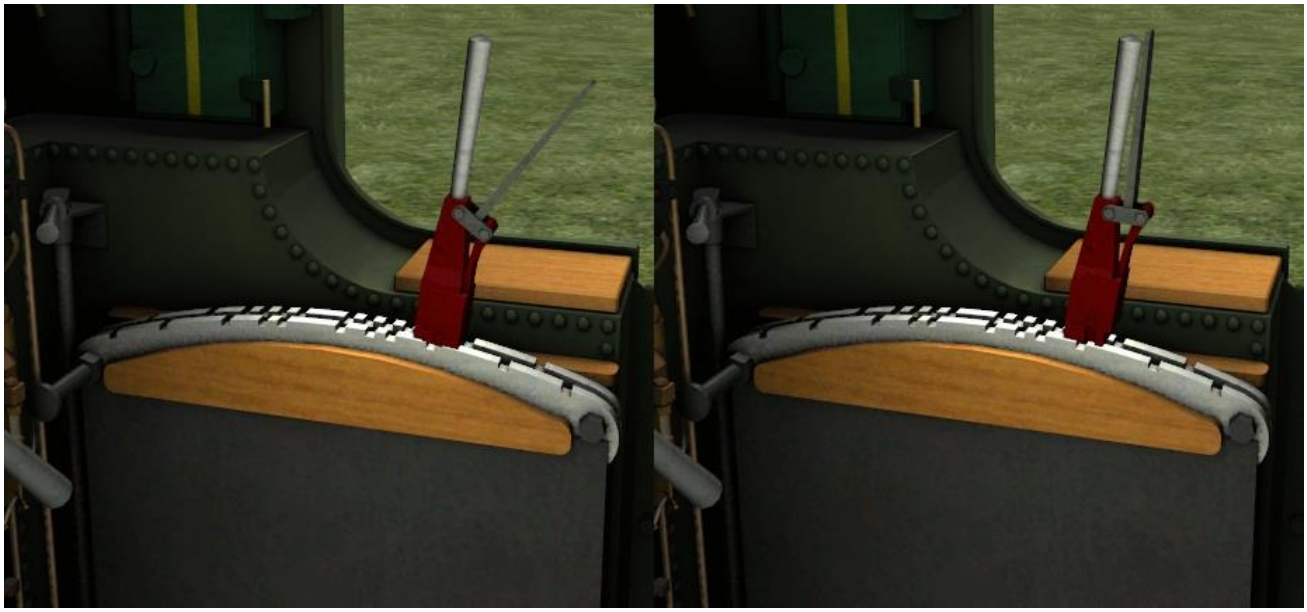
The Advanced Mode controls are marked below.

Controls

Entering the cab you will note you are stood on the right side of the locomotive, which all sensible railway companies in Great Britain treat as the default position for the driver. The fireman will be stood at your left side. Notable controls are as follows:

1. Regulator

This is like the accelerator in your motor car, should you be fortunate enough to have one. It is can be applied in a number of positions through closed to fully open. This controls the amount of steam allowed into the cylinders, hence directly controlling the speed.



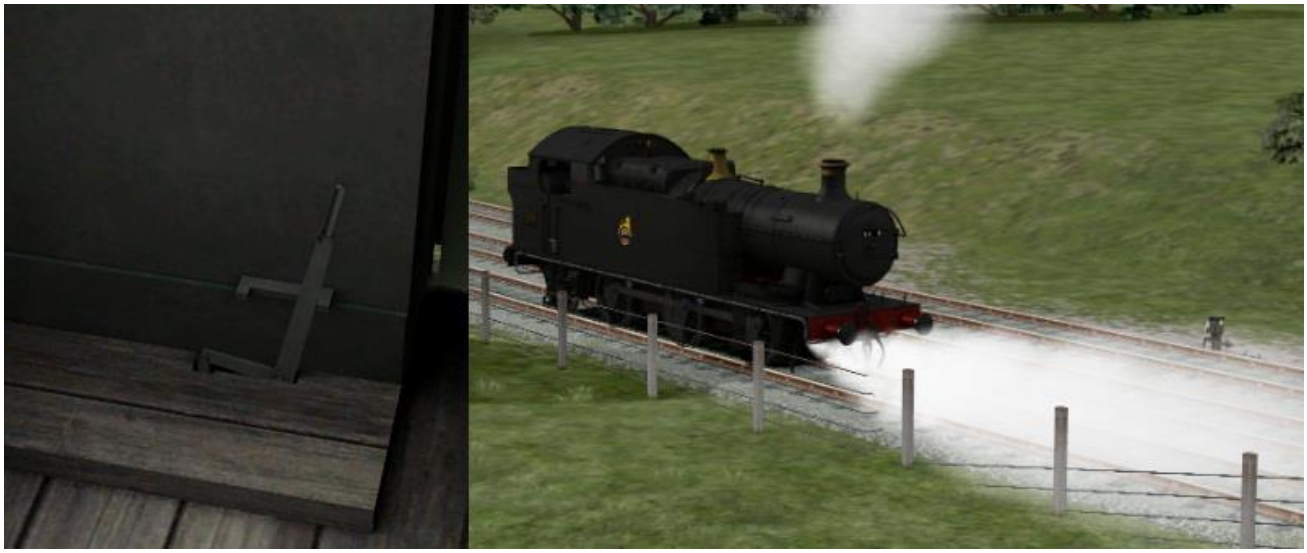
2. Reverser

This is like the gears on a motor car. It is usual to start with the reverser set at 75 percent cut-off (fully forwards), at the maximum travel of the mechanism. As you pick up speed it is usual to set it to reduce the cut-off. This allows economic driving as well as decent speed whilst hauling a load.

Advanced Mode

Please note to move the reverser successfully, the regulator must be nearer to closed than fully open. Failure to do so will ensure that when the reverser lock is removed the reverser will be thrown out of your hands to the bulkhead putting it in full cut-off, and if in reverse smacking you smartly in the gentleman's region! Not only this, but your fireman will curse you as well. So don't do it.

To move the reverser requires the hand lock to be taken off. To do this, press and hold the E key on the keyboard (should you be fortunate enough to have one), move the reverser to the required position, and then release the hand lock (let go of the E key). Because of this speed is usually controlled more by the regulator than is common on screw reverser equipped locomotives. Due to the difficulty in changing the position, ensure you select a cut-off that you won't need to adjust before you reach the beginning of the gradient. Failure to assess the gradient correctly may result in a stall.



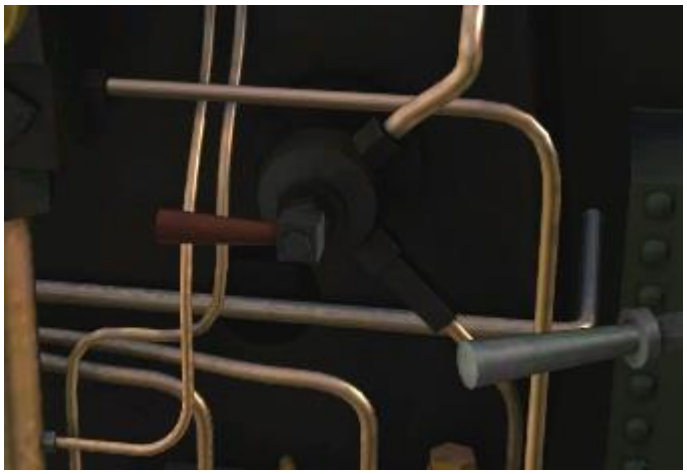
3. Cylinder cocks

Advanced Mode

Never NEVER move away from more than a short standing start without ensuring that these are open. When a locomotive sits static for any amount of time, water condensation builds up in the cylinders. Thus when the piston is in motion, and because water does not compress, there is a loud bang and your cylinder goes flying out through the front of the locomotive. Not only does this make you look bad (and unemployed) but it results in unnecessary damage to the machine. So be a good driver, and when moving off from anything other than a very short halt, make sure the cylinder cocks are open. You can be sure of this, because bags of steam will fly from the front of your locomotive. This is NORMAL. Do NOT be alarmed. Listen to the tone of the escaping steam. You will hear the difference between water being ejected and pure steam and this will tell you when the cylinders are clear. Alternatively, wait till your locomotives wheels have completed 4 to 6 full revolutions, and then you may close the cocks.

4. The firebox

This is largely the fireman's job, but should you feel inclined to help him out, pushing sideways on the lever with your hand (or mouse cursor if you prefer) will open the firebox doors. Ensure they are fully open to allow full ingress of coal. A related tool is the coal box door to your rear. When the firebox door is open, pull the coal box door open to regulate the input of coal into the firebox.



5. Blower

This is to be applied in a number of conditions, the most important of which is when you go through a tunnel. Failure to do so will result in a condition called 'Blowback', which in some circumstances has been fatal. This is due to pressure building up in the chimney of the locomotive, and blowing hot gas through the firebox into the crew compartment. This is BAD! To stop this occurring ensure that the blower is at least at 5 percent when entering a tunnel and that the firebox doors are CLOSED.

Other uses for the blower include when the firebox is being stacked with coal. Adding fresh fuel temporarily reduces the heat of the fire and applying blower for a short period will get it hot again.

The most useful application of the blower is when the regulator is at idle. Since there is no throughput of steam when at idle, air flow is minimised and therefore the fire loses heat. In some circumstances (such as when the safety valve is going off) this is not a bad thing, but if you are at a top of a hill with a nearly empty boiler you will want to get some pressure up, which if you have the regulator shut will not be possible. Fully opening the blower will force air over the fire and allow shutting the regulator so speed can be controlled. It is good practice to turn off the blower again when you open the regulator to save on unnecessary steam usage.

6. Damper

Another tool related to the firebox. This helps control the heat of the firebox, closing it will reduce the air flow through the fire, thereby lowering heat and steam production. Opening it will allow more air in, hence producing more heat and steam. At higher steam production rates, it is perhaps advisable to have the damper fully open.

7. Exhaust injector (left of picture)

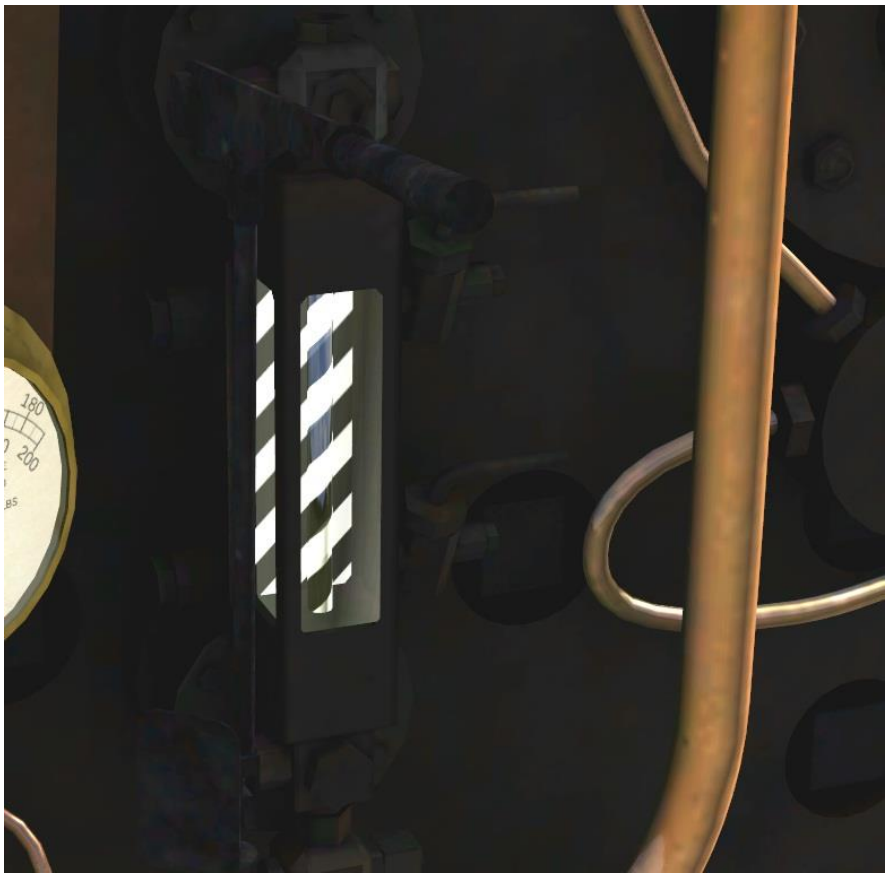
This takes steam from the cylinders and recycles it to blast water from the tanks into the boiler. It's a method preferable when you are running low on steam, but want more water.

Live steam injector (right of picture)

Performs the same task as the Exhaust injector but uses live steam from the boiler, rather than exhaust steam. This is the preferred method when you have lots of steam and you want to transfer water from the tanks into the boiler quickly.

8. Live and Exhaust water taps

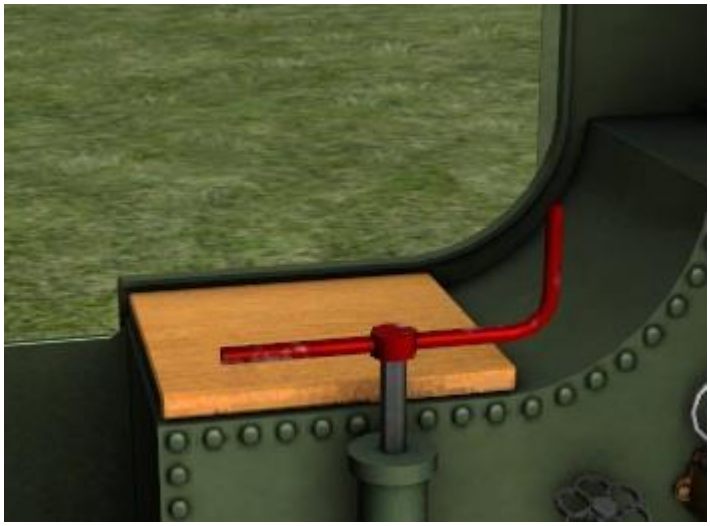
Ensure each of these is open for the appropriate Live or Exhaust injector control.



9. Boiler overfill

Advanced Mode

Driving a locomotive is a tricky task and just to keep you on your toes you're going to need to keep an eye on the boiler water level as well. Obviously you don't want to let it get too low; however you also want to be careful if you overfill the boiler. Overfilling at high pressure can force water into the cylinders and cause the same problems as having condensed water from standing still. If you overfill the boiler open the cylinder cocks immediately and leave them open until the water level in the glass drops below full.

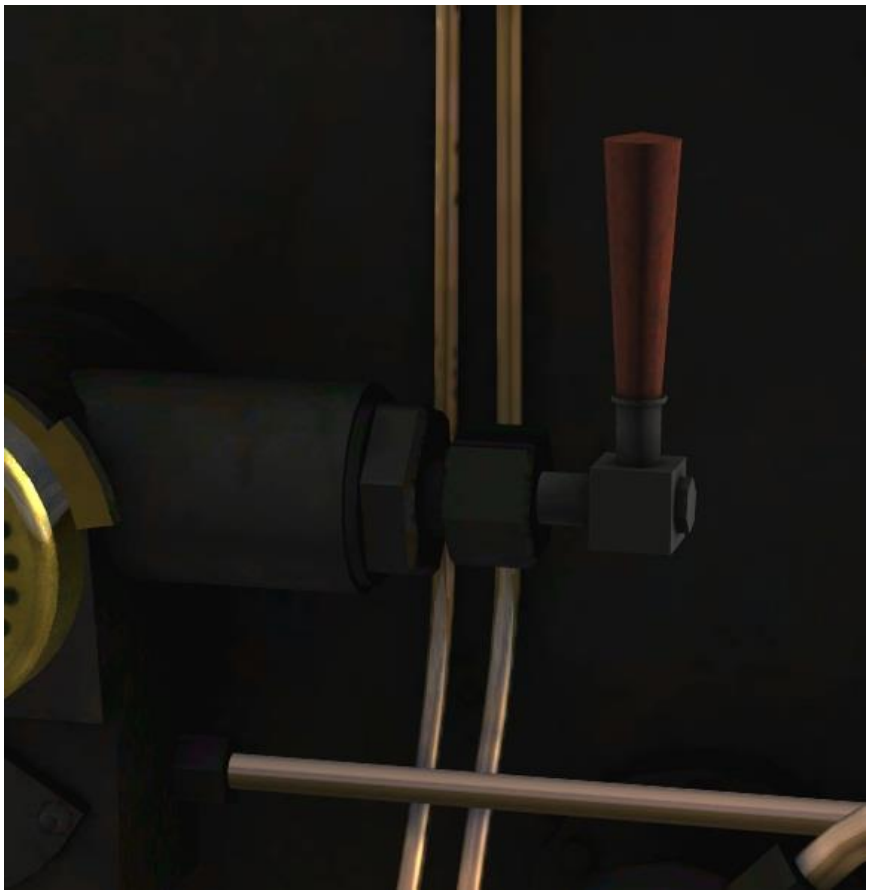


10. Handbrake

Use this if you are going to walk away from the locomotive or you are going to stand for any period without a consist using the vacuum brakes to keep you in position. Think of it as the handbrake on your motor car, or your feet on your motor-bicycle.

11. The vacuum brake

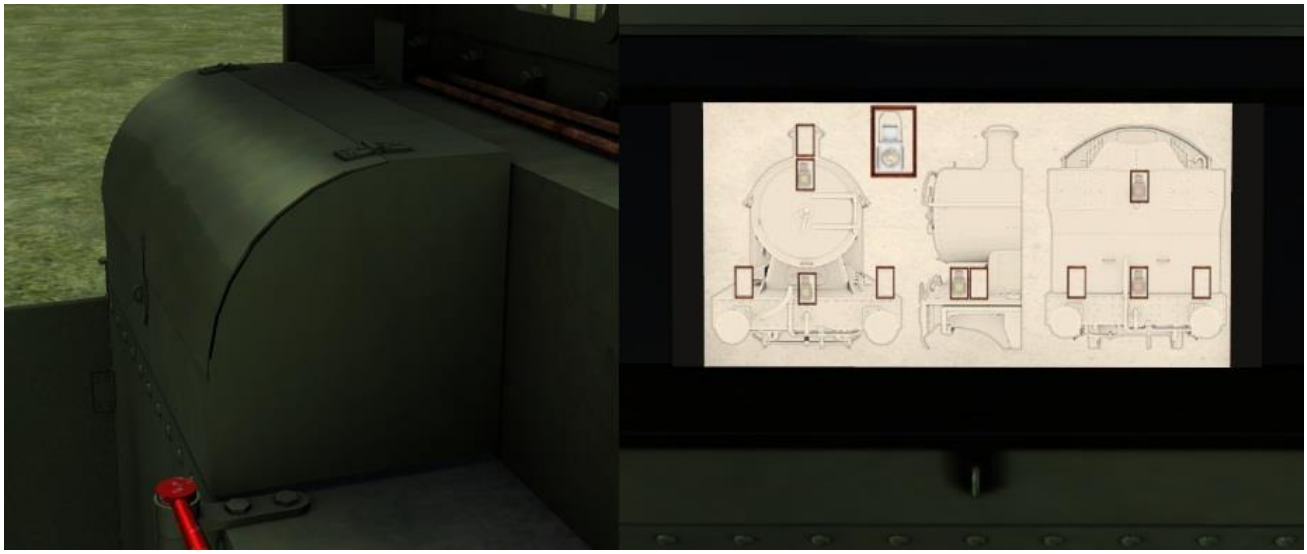
If the regulator is important to get you going, this is important for bringing you to a stop.



12. Brake ejector (see above)

Advanced Mode

In the Great Western we have a slightly unusual (more sensible) system, in that to get the brake off you need to use the brake ejector to create vacuum in the system and thereby lift the brake shoes from the wheels. The ejector is advised to be kept open a small amount to counter leaks in the system which may allow air to enter the pipes and cause the brakes to drift on.
To get brakes 'off' ensure that the brake lever is fully closed (turned as far as it will travel to the right), and open the brake ejector by pulling it towards you. To get brakes on again, ensure the ejector is closed and move the brake lever slowly to the left. This will start to destroy the vacuum and apply the brakes. As you near the stop, open the ejector to reduce the pressure in the brakes removing the sudden halt so common with 'other' railway company locomotives. Practice makes perfect, and as a Great Western Driver we are sure you will be.



13. Tool box

To the drivers rear is a toolbox. Usually this contains vital safety equipment such as a large hammer, pincers, packed lunch etc. However the 56xx has a hidden secret. Firstly, ensure you are stationary (do you know how hard it is to put oil lamps on the front of a train whilst it's moving?) and open the tool box. Note: opening this will clear any lamp configuration set by the scenario writer. To set the lamps correctly to the configuration of your train, move the oil lamp slider at the top to set the colour of you oil lamp casing (white bodies were common only after the mid-1930s).

The sliders near the bottom display either white lenses or red lenses. Red lenses should be at the rear only if you are driving light engine, or at the front of the locomotive if you are driving light engine rearward. The red lensed lamp should be on the rear of the train. For the most part then, we will be using white lensed lamps on the front or rear of the locomotive, depending on whether you are hauling with the front, or rear of the locomotive moving forwards. Confused? Don't be. Configuration of the lamps should be the same whichever direction is leading. Just make sure you take them off the locomotive as you change direction. To light the lamps use a wick – or the H key, whichever is easier.

We include a list of possible lamp configurations (see Head Code Classes section below) so you don't horribly confuse signalmen, though we warrant you won't be hauling the Royal train very often!

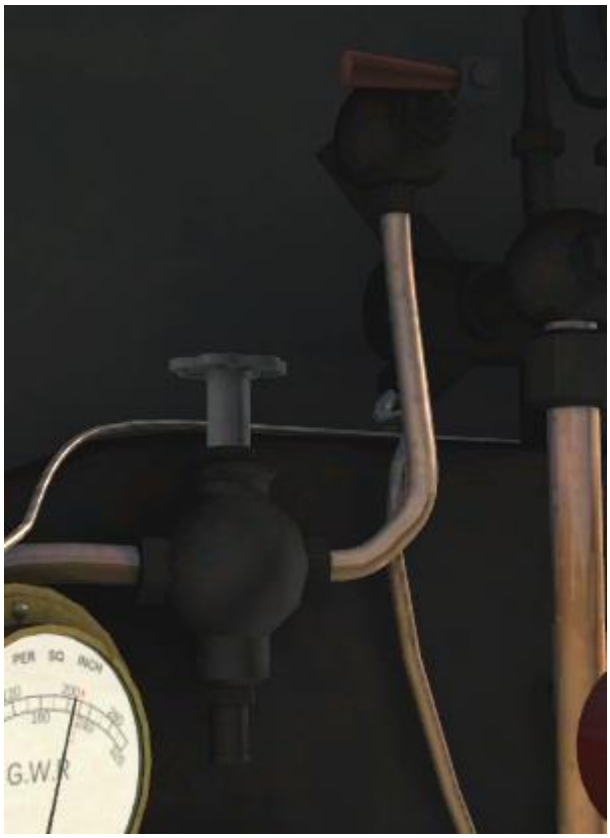
14. The Sander

The very latest in traction control equipment, the sander will assist you in starting with very heavy trains without a slip, and also halt slips when ascending hills covered with leaves or light snow. It is not perfect however, should you start to slip, and it is advisable you also drop the regulator to help the sand bite. Additionally, leaving a slip uncontrolled can lead to a damaged motion.

15. Automatic Train control (Non operable at the present time)

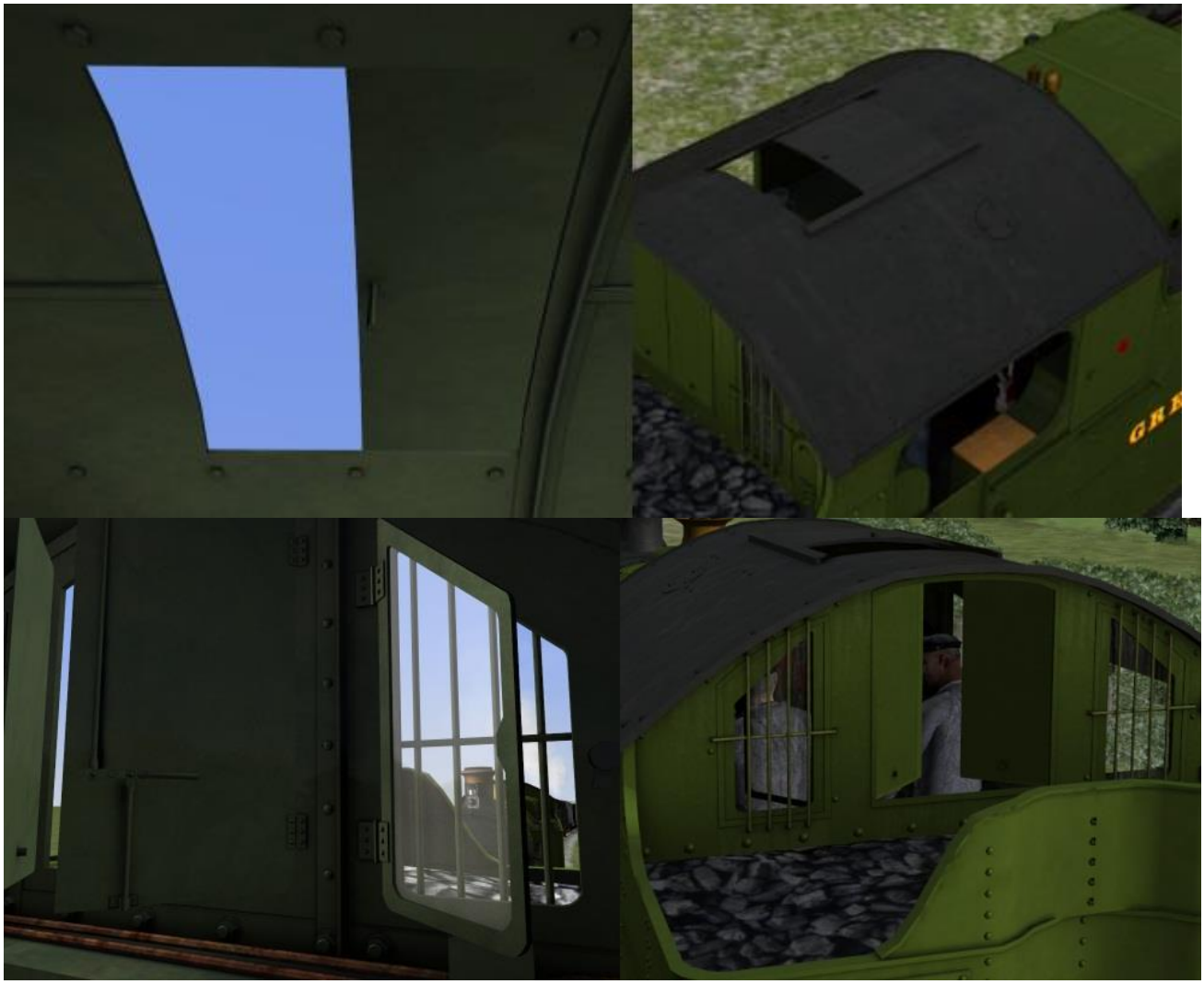
The world's first (and still the best) train safety equipment. Distant signals when at caution will energize a ramp at the foot of the signal, which your locomotive will detect and start to apply the brakes and ring this bell in the cab. Pressing the driver aware button will halt the application of

brakes, so you can proceed at caution to the first at danger signal. Regrettably at the moment it is not operational. Hopefully it may be rectified at the next overhaul.



16. Train heating equipment

The Masons Valve and fine adjustment controls are used for the application of steam heat through passenger rolling stock, though it is useful in helping to ripen bananas when hauling fruit vans. It is visually operational at the moment. Hopefully this will be functionally operational in the future when delivery of the steam heating equipment arrives from our premier train equipment suppliers, RSC & Son.



17. Ventilation

Working in a cab of a steam locomotive is hot work. To aid in the comfort of the crew make sure you open any windows, doors or the roof panel as you see fit. Alternatively if it's a wet day in Wales then you can slide the side window panels closed to keep the downpour out.

Locomotive Numbering

All 200 examples of the 56xx are covered by the automatic numbering system; however by editing the number of the locomotive placed in a scenario you can change features of the 56xx as follows:

e.g. 5600LP8H>
The first 4 digits are the locomotives number
The fifth digit denotes the logo
GWR, # *Great Western*, L *GWR*, M *Shirt Button*
BR, # Pre 1956 logo, L Post 1956 logo
The sixth digit changes the buffer types (GWR)
Tapered, P Parallel
The sixth digit changes the shed code (BR)
A 88A Cardiff Cathays, B 88D Merthyr, C 87F Llanelly, D 84J Croes Newydd
E 84E Tysley, F 88F Treherbert, G 88E Abercynon, H 87D Swansea East Dock
I 88C Barry, J 86J Aberdare, K 86E Severn Tunnel Junction, L 87H Neyland
M 86G Pontypool Road, N 84D Leamington Spa, O 84H Wellington
P 88B Cardiff East Dock, Q 86F Tondu, R 86D Llantristant, S 87A Neath (Court Sart)
T 87B Duffryn Yard, U 86C Cardiff Canton, V 84B Oxley, W 84F Stourbridge Junction
X 84C Banbury
(Although Railworks does not currently support an in cab gauge for tank water level - only boiler water level - the 56xx has an internal calculation to approximate water usage. For this to function correctly the scenario writer needs to set the level in the loco number – note: if the loco is intended to refuel at the start of the scenario set this as full to begin with)
The seventh digit sets the initial water level for the cab tanks water gauge
0 to 9 should be used for 0% to 90%, A for 100% (i.e. full)
The eighth digit sets the lamps head code (see Head Code Classes section)
a to k will use red lamp bodies (GWR ONLY), A to K will use white lamp bodies
The ninth digit selects the direction of travel for the lamp head codes
> the locomotive is running light (lamps on both ends) and travelling boiler first
< the locomotive is running light (lamps on both ends) and travelling cab first
} the locomotive is pulling stock (lamps on one end) and travelling boiler first
{ the locomotive is pulling stock (lamps on one end) and travelling cab first

So the example above, 5600LP8H> on a GWR locomotive shows the following:
Loco number 5600, with a GWR logo and parallel buffers, its water tanks 80% full and with head code class H running light in the direction of its boiler.

Head Code Classes

The following are the 1936 GWR head code classes that you can set using the numbering system or manually via the toolbox control panel during a scenario.

Class A

- Express passenger train
- Breakdown van train going to clear the line, or light engine going to assist disabled train
- Empty coaching stock timed at express speed
- Express streamline railcar

Class B

- Ordinary passenger or mixed train
- Branch passenger train
- Breakdown train not going to clear the line
- Rail motor car, auto-train or streamline railcar

Class C

- Parcels, newspapers, meat, fish, fruit, milk, horse, cattle or perishable train composed entirely of vacuum fitted stock with vacuum pipe connected to the engine
- Express freight, livestock, perishable or ballast. Train pipe with not less than one third of the vehicles vacuum fitted and pipe connected to the engine

Class D

- Express freight, or ballast train conveying a stipulated number of vacuum braked vehicles connected by the vacuum pipe to the engine and authorised to run at a maximum speed of 35mph
- Empty coaching stock train (not specially authorised to carry "A" head code)

Class E

- Express freight, fish, fruit, meat, cattle or ballast train
- Breakdown train not proceeding to an accident

Class F

- Fast freight conveying through load, all unfitted

Class G

- Light engine or light engines coupled
- Engine with not more than two brake vans

Class H

- Freight, mineral or ballast train or empty train carrying through load to destination

Class J

- Freight, mineral or ballast train stopping at intermediate stations

Class K

- Branch freight train
- Freight or ballast train or Officers special train requiring to stop in section

Quick Start

I say, you're keen! Well, let's get busy then.

To go:
1. Set the reverser to fully forwards or reverse (don't forget to take off the lock with the E key whilst you move it if you are in advanced mode)
2. Open the regulator slightly (just in case it's a hill start)
3. Ensure handbrake is off (take a look outside if you are not sure of its position)
4. Move the Vacuum brake lever to off (right)

You will note the 2 needles in the vacuum gauge lift to 25 psi. When they do, the brakes will be off and you will be on the move.

To stop:
1. Ensure the regulator is at rest (0)
2. Move the vacuum brake handle towards on (left) and watch the vacuum gauge drop. When you have achieved the required pressure in the braking system, return it to the off (right) position. If an emergency stop is required, keep the handle on until you reach 0 psi but beware of slipping in wet or frozen conditions.

The board do not favour overshooting platforms and sidings. In short: do not brake late and hard. Brake early and wisely.

Custom Settings

It is possible to customise the installation of your 56xx pack. This will not be overwritten by Steam updates.

The available setting is:

- Using TSX with no shadows

Using TSX with no shadows:
Due to the way the TSX engine changes shadow casting for lights I have added the option to tell the locomotives that you are running with TSX selected and with the Shadow Quality setting set to Off. Why? The light source from the firebox is set to cast shadows and creates a very nice effect when hidden behind the backhead, shining light out as the firebox doors are opened. However when shadows are set to off, the light that is occluded by the firebox doors constantly spills out and fills the cab all of the time.

Therefore I have added this option which will turn the firebox light into an on/off operation that synchronises with the firebox doors for those who have Shadow Quality set to Off.

How to activate the custom settings

To activate the custom settings:

If Train Simulator is running, close it.
Navigate to your Steam Train Simulator installation folder – the default for this is,
C:\Program Files\Steam\steamapps\common\railworks
Yours may be different if you selected custom settings when you installed Steam.

Navigate to the following inside the railworks folder, Assets\karma99\56xxPack

Inside the 56xxPack folder you will find a file called "_CustomSettings.txt".
Rename this file to "CustomSettings.txt" to make it readable by the game.

Open the file using Notepad and you will see the following content:

RunningTSXWithShadowsOff=true

The options are listed on a single line each, and their names indicate which option they control. The word "true" or "false" after the = (equals) sign indicates whether the option is active or not.

The default setting is for Running TSX with shadows off "RunningTSXWithShadowsOff=true"

Change this to true or false depending on your preference – note, having it set to false is the same as not having the file or it being renamed something other than "CustomSettings.txt", i.e. it has no effect.

Due to renaming the file, if Steam updates Train Simulator at a later time it will not touch your custom file, but will re-download a default copy of "_CustomSettings.txt".
If you make a change to the settings and the locomotive subsequently fails to operate correctly you have most likely mistyped something in the settings file.

Simply delete the custom settings file and use the Steam properties menu to Verify the Game Cache and it will re-download a default copy of "_CustomSettings.txt".

Acknowledgements

I would like to thank the following people for their help and encouragement during this project:

Stuart Galbraith for his work on the loco performance and help with the manual
HenningBR218 for his superb Blender exporter
Matt for his assistance with sounds
Bob Payne for his help with the manual and testing
Jim for his first hand knowledge of firing steam locomotives
All of the beta testing crew
Paul Godber
Derek Siddle
Matt Peddlesden
Everyone at Railsimulator.com
The Llangollen Railway and especially the crew of 5643 during the 60's Weekend, summer 2010
My wife for all her support and for putting up with visiting lots of preserved railways whilst on holiday, and my father for instilling in me a love of steam trains from an early age

1936 GWR Head Codes taken from http://www.uksteam.info/gwr/hcodes.htm and http://myweb.tiscali.co.uk/gansq/3-sigs/bellhead.htm

Updates:

Railworks 3: Train Simulator 2012 (applied May 2012)

The following updates were applied to the 56XX Tank Locomotive Add-On to bring it in line with the features (primarily TSX) added to the Railworks 3: Train Simulator 2012 update.

The updates have been applied to both locomotive versions.

- Updated locomotive textures with improved colour and less reflection
- Fixed the glowing “white dots” for rivets by reducing reflection
- Fixed glowing issue on dials and tool box control panel
- Changed allowed boiler overfill to be closer to recorded GWR performance levels of 110%
- Updated the cab model with new shadow forming shader
- Added rain effects to all windows – note: the rain drops will vanish when a window is opened, there is currently no way to keep the existing rain drops on the windows and stop any more from forming
- Added light glows for the firebox (from the grate and the firebox doors)
- Added a working boiler glass gauge lamp with light – activates with the lamps/headlights control
- Added custom settings for shadow casting firebox glow and allow disabling of cylinder blow out (see instructions below)
- Fixed glowing issue for logos/text on all included wagons

Train Simulator 2014 (applied November 2013)

- Replaced mixed route scenarios with 5 new scenarios for the Maerdy branch
- Fixed an issue in the script where the custom file would not always stop cylinder blowout
- Added pop-up messages to cylinder blowouts
- Fixed issue with couplings for GWR version requiring Kuju folder
- Fixed issue with load not showing for some wagons
- Fixed issue with coupling distance for cattle wagons
- Added Quick Drive consists
- Added Advanced Mode as optional