

2' 3" Narrow Gauge Southwold Wagons

Version 2.0

by

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Introduction

This is a "work in progress" to develop a series of 2'3" narrow gauge items & assets as a FREE resource for Railworks. The gauge was chosen to enable use of the already existing Railworks assets developed for the Talyllyn and Phorum Peninsular pay ware routes.

The Southwold Wagons

The Southwold Railway was opened in 1879 as a connection between Halesworth on the GER and the harbour at Southwold on the Essex coast. The last train ran in April 1929 and, despite several more or less madcap schemes to restart the line, the urgent need for steel in WW2 brought about its eventual total demise.

As a 3' gauge line, and with a wide variety of goods being handled, it had more in common with standard gauge practise than the more traditional narrow gauge lines serving one particular industry or market. This was reflected in its' stock of wagons which were really just small versions of fairly common Edwardian wagon designs. The line owned 23 four wheeled wagons of which two were flat (ish) wagons and two box vans. There were also up to 16 six wheel wagons owned by Thom. Moy. These were based on the Southwold's infamous 6 wheel coach underframes which used Cleminson's flexible underframes. A solution that avoided the need for bogies but produced almost continual groaning and screeching under the coach. The wagons were painted grey, except the vans which were maroon and later red-oxide when the line was taken over by the Southern Railway.

The Models

These models are for 2'3" gauge. To achieve this I have taken a couple of liberties. Firstly the wheels have been reduced in size from the original 2' diameter to about 1'9". This also meant that to preserve the relationship between the wheel diameters and the under frame the whole wagon has been lowered slightly and the wheel mountings reduced in size by a few inches. The dimensions of the wagon bodies and the under frame remain untouched.

This produces a pleasing (to my eyes at least) impression of the correct 3' proportions on a 2'6" gauge.

I have modelled the main wagon types - the most recognisable characteristic were the rounded ends of the 3 plank wagons and the apparently over large axle boxes.

Version Control

As mistakes are rectified I will issue a new release. Each release will contain all the stock previously released so that you will only need to keep a copy of the latest release.

Release	Description	Date
v1.0	Original release	June 2012
v2.0	Changed the loading of the wagons, added new sound file	July 2012

Conditions & Licence – PLEASE READ THIS

For free ware routes that you develop for yourself or for release as free ware on any website or system, you have an absolute and total right of ownership.

This is totally free ware. It is yours to do with what you want. This contains only assets made by me – it does not need any other downloads. It does refer to the generic Railworks wagon sounds but these are unmodified. You may use it, clone it, modify it, rebadge and rebrand it. You may change the creator name and any other details. You may include it in your route without seeking any permission. You may reverse engineer this asset. However, if you contact me I will try to send you all the original files to save you the hassle.

It may not be used in routes for which payment is sought or in other ways that might be thought of as commercial. I reserve absolutely the right to determine what is commercial in this case. Charity - ware is commercial but is likely to be granted access.

If you release this stock modified then please do keep in mind that others will be using it in an original form. Please don't use the exactly the same names as mine in a public release just add your own. This is only to stop other folks having difficulties.

The Wagons Described & Illustrated



This is the DEFAULT wagon, for any other modification you need this wagon to get the wheels etc.

There were two designs; one with a single curved plank and one with the curve a little higher made from two planks. This looked a bit odd to be honest and so I have only modelled the 3 plank version with a single curved plank.

This wagon can be loaded - it comes with a sand load as the default. See the Finer Technical Points section for how you can set up different loads. It also has an automatic wagon number allocated which you can change - see Finer Technical Points.

This is the 2 PLANK wagon. Unlike the 3 plank wagons these had straight ends but like them it had full side tipping doors. These doors are not animated in the models - yet.

Several versions of the wagon are available with different loads pre-set - the default has sand, there is a RAIL version and a ROOF version.





This is the FLAT WAGON. In fact it isn't truly a flat wagon as it has a single plank side to it. The wagon is fitted with tie downs which I am not sure are correct but look nice.

There is no load for this wagon at present but it does have automatic numbering.

This is the GREY BOX VAN. It uses the same under frame as the other wagons but the sides were lowered so that the door opened onto the floor without a step. I am possibly going to animate the doors for loading at some point but for the moment the wagons cannot be loaded as they have no interior !

Once again it has automatic numbering.



I have also included RED VAN which is a copy of the grey van above but in weathered paint.

It maybe a better representation of what the Southwold Wagons looked like.

Installing the Wagons

Should be simplicity itself as I hope I have added an RWP file that works. Don't forget that if you have a good .zip file manager like 7-Zip you can actually open an RWP like any other file anyway.

You will then need to go into your route editor and enable them using the infamous blue cube. My assets will always be under **richardmaxted**. All my Narrow gauge assets will be in the **NarrowGauge** tick box under this.

Using the Skips

The skips will be found under the wagons symbol in the normal fly-out. All my wagons start with "NG" so these will be "**NGSW**....etc". They are all capable of connecting to each other and to other narrow gauge stock.

Loading & Unloading

The 3 plank and 2 plank open wagons can be loaded at the start of a scenario using the normal loading fly-out on the right hand side of the screen. The default wagons load with sand and a version of the two plank wagons is supplied for each type of load. See finer technical points.



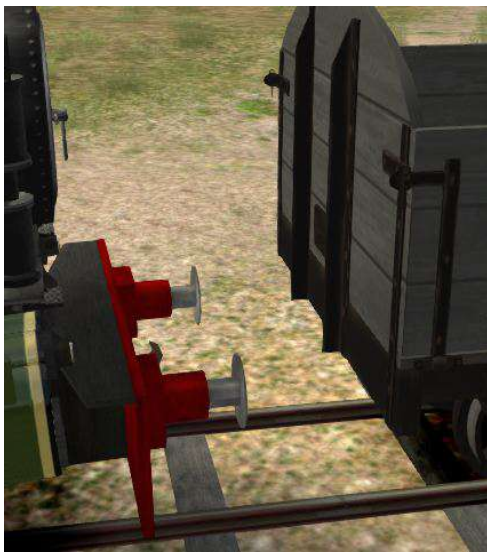
Loads in Railworks are either "bulk" or "container". The type of load requires a different loader / unloader to work. Whereas my skips are set as bulk loads these loads are container loads. This is because such trucks not only carried coal which might gradually load and unload but also boxes, beams, and bicycles which are a one-off load.

Couplings

The Southwold Railway used a fairly simple chopper coupling. I have added a set of these to the wagons and they seem to work pretty well.

The height of the couplings may appear wrong in comparison to other NG stock. This is partly a function of them being ex-three foot stock and partly because the Southwold Stock do appear to have had fairly high clearance anyway - perhaps a function of those huge axle boxes.

This coupling is part of the free download and does not require permission to be used elsewhere.



However, as always, a persistent problem has been getting the hook up to engines to show. This wagon is in fact coupled to the engine and all aspects of the coupling seem to work - except the display. I have no idea why.

It also seems quite hard to persuade some locos to hook to the wagons in Scenario Editor. At present I have no idea why this is so but once out of the editor they are often coupled or can be.

Any issues with this then leave a message on UKTRAINSIM for me.

Numbers

A new innovation for these models is the automatic numbering. I have finally worked out how to do this and I suspect have got a bit over enthused. In my defence the Southwold wagons were numbered but in a rather plain Southern Railway font. I have given them a more Edwardian Flavour using the Felix font type.

The numbers are assigned automatically to the wagons from a predetermined list. However you can number the wagon yourself in the scenario editor fly out. Numbers run from 0-99. The numbering system requires 2 digits so if you want to show No 2 as in the picture you need to type in 2X - the X means blank.

Finer Technical Points below has more details.



Finer Technical Points

Where to find the files

All of my future and current 2'3" narrow gauge assets will be located in subdirectories of ~

Assets/richardmaxted/NarrowGauge

So far as the Southwold Wagons are concerned the relevant directories under this are~

- ♦ Couplings – contains my own design of chopper couplings
- ♦ Freight/NGSWwagons – contains the wagons themselves
- ♦ RailNetwork/Audio - contains the new wagon sound file

Under the Freight directory each wagon type has its own separate directory

- ♦ Open - contains the Default 3 plank and the 2 plank and also is where the other skips get their wheels from so you must retain this directory
- ♦ Flat - the flat wagon.
- ♦ Van - contains the grey and red vans in separate directories
- ♦ Loads - see below

Swapping the loads

The load is a generic item called "load.bin" which is located in each wagons directory. In the "Loads" directory you will find four ".bin" files which are the four different loads.

- ♦ Load.JubileeTrack.Bin - *suitable for 2 and 3 plank wagons*
- ♦ Load.Sheeting.Bin - *suitable for 2 and 3 plank wagons*
- ♦ Load.TallGravel.Bin - *suitable for 3 plank wagons only*
- ♦ Load.ShortGravel.Bin - *suitable for 2 and 3 plank wagons*

To swap the load you **copy** the relevant ".bin" to the wagon of choice. Delete the load.bin that is there and rename your copied file to "Load.Bin". It will now be the load for all wagons of that type. These are the loads that are referenced by default.

Repaints and Additions

These wagons use a fairly extensive set of shaders including TrainDecal.fx for the numbers and bump textures for the planking effects. Because of this I am going to assume that you will only be repainting if you understand how bump/normal and alpha specular textures work. In terms of the basics the under frame uses a separate texture from the wheels and from the main body. The van body is a separate texture from the open wagon bodies and the flat truck body. By all means feel free to modify the textures / reskin / and re-release

Wagon Weights & Warnings

The wagon weights are not recorded in my Southwold book. Looking at the Campbell and Machrihanish Railway they had similar dimension wagons and so I have taken the weights from these. There is a texture that has all the wagon weights and warnings on it. This texture is a decal on the wagon sides and so it is possible to edit to provide new wagon weights and the side warning for the flat wagon.

Wagon Numbers

The wagon numbers are read automatically from the ".dcsv" files in each directory. The following numbers are allocated to wagons in a random sequence.

Wagons 2, 3, 5, 6, 14, 16 and 17 are allocated to the 3 Plank Opens
Wagons 1 and 4 are allocated to the 2 Plank Opens
Wagons 7 and 8 are the Flat Wagons
Wagons 10, 11 and 12 are the Grey Box Vans
Wagon 19 is the Red Box Van

You can change the number in the Scenario editor to any 2 digit number. To get a single digit number to show correctly against the No decal use X as a blank spacer. So the number 4 would be 4X.

If you don't want the wagon to be numbered then simply typing a single digit number stops the wagon number and the "No" decals from showing.

All stock numbering is the same size of textures so if you don't like the font then copy any number texture files and replace the existing ones.

Brakes

The wagon is modelled in the blueprint with brakes. These are Air Brakes. However they seem to have no perceptible impact on the simulation of the wagons.

This is so not right as to be almost laughable were it not for the fact that something in the physics of Railworks means that the performance of unbraked very light wagons is even worse. There are effects coupling up to already existing braked stock that I have spent far too long trying to solve and simply adding brakes sorts it out.

If you want to try it without brakes than please do. However, I would suggest that if you do not know where this section is or how to do it then this is probably not a job to do as a first time go at changing a blueprint.

Suspension & Super-elevation

There is no suspension in these wagons and so I am not sure if they work with super-elevation or not. Suspension is achieved in RW2012 by adding:

```
<SuspensionStiffness></SuspensionStiffness>  
<SuspensionDamping></SuspensionDamping>
```

parameters to the bogie.bin file when the model is put through the blueprint editor for the first time. The values added are usually expressed in 6e7 type notation. These values are set to 0 - disabled.

Sounds

This is a major update for version 2.0. Wagons use three basic sets of sounds for the couplers, the bangs & clanks and the rail noises. When I updated the rail sounds I found that the track joint noises were muted inside the cab. This is obviously fine for a large loco but for narrow gauge you can hear the wagon sounds all the time. As a result I have made my own wagon sounds file called RMNGStock. This has no inside muting, the flange curve squeal sounds with sharp curves, and the volume increases at low narrow gauge speeds.

The sound file is in:

Assets/richardmaxted/NarrowGauge/RailVehicles/Audio

These audio files replace BG_Steam files. It is possible to add this reference to any narrow gauge wagon by editing the .bin file line :

```
<BogieAudioControlName d:type="cDeltaString">richardmaxted\NarrowGauge\RailVehicles\Audio\RMNGStock</BogieAudioControlName>
```