

WEST HILL WAGON WORKS

Guide to Head & Tail Lamps



Introduction to Rolling Stock Lamps

From the early days of railways, lamps have been used to describe the status of trains being hauled and, in the case of a red lamp at the rear of a rake, to denote that the train is complete.

These lamps were there to assist the signalmen and operators of the railway.

Different companies adopted different styles of lamps and lamp irons used to locate the oil lit lamps.

The West Hill Wagon Works lamps range includes headlamps of the style used by the GWR, LNER, LMS (Midland) and Southern Regions of British Railways.

All lamps are supplied unpainted on sprues.

Tail lamps and Side Lamps used on brake vans and at the rear of trains are also included.

Most styles of lamps are available in with crystal lenses that provide a more realistic effect of a lit lens; these crystals are supplied separately in the packet. Crystals have a cone shape on their back and need to be fitted into the cone recess on the front of the lamps after painting.

Slots on the bottom of each lamp may allow the lamps to be slotted onto lamp irons on your locomotives (depending on the size and shape of the model lamp irons).





This guide is intended to provide information on the preparation of your model lamps, fitting of the crystals and use of lamps on your trains.

Headlamps




Headlamps are used to describe the status of the train being operated; for example an express passenger train or an unfitted goods train.

The positioning and use of lamps was standardised on British Railways however the style of lamps used differed between the operating regions.

The following lists the styles of locomotive headlamps available from West Hill Wagon Works.



Description	Product Code	Product Pictures	Scale	Notes / Application
BR Midland Region / LMS Headlamps	4WH0800808 Set - L8		OO Gauge	Solid Lamps, Lenses needs to be painted (pack of 6)
	4WH0800809 Set – L9		OO Gauge	Supplied with Crystals (pack of 6)
	4WH0800811 Set – L11		O Gauge	Supplied with Crystals (pack of 6)
	2WH0800813 Set – L13		N Gauge	Solid Lamps, Lenses needs to be painted. Supplied in an assorted pack along with other headlamps and tail lamps. Product 2WH0800813

Headlamps

Description	Product Code	Product Pictures	Scale	Notes / Application
BR Western Region / GWR Headlamps	4WH0800810 Set – L10		OO Gauge	Supplied with Crystals (pack of 6)
	4WH0800812 Set – L12		O Gauge	Supplied with Crystals (pack of 6)
	2WH0800813 Set – L13		N Gauge	Solid Lamps, Lenses needs to be painted. Supplied in an assorted pack along with other headlamps and tail lamps. Product 2WH0800813

Description	Product Code	Product Pictures	Scale	Notes / Application
BR Eastern Region / LNER Headlamps	4WH0800814 Set – L14		OO Gauge	Supplied with Crystals (pack of 6)
	4WH0800823 Set – L23		O Gauge	Supplied with Crystals (pack of 6)
	3WH0800824 Set – L24		TT120 Scale	Solid Lamps, Lenses needs to be painted. (pack of 10)


Headlamps

Description	Product Code	Product Pictures	Scale	Notes / Application
BR Southern Region / SR Headlamps	4WH0800815 Set – L15		OO Gauge	Supplied with Crystals (pack of 6)
	4WH0800816 Set – L16		O Gauge	Supplied with Crystals (pack of 6)

After the 1923 grouping all the different headlamp signals used by the constituent companies were combined into a standard Southern Railway six-position code.



The use of these discs continued on the Southern Region into British Rail days until the late 1960s.



A white disc is shown during daylight hours, and a white lamp during darkness, to designate the route that the train is operating on and also special workings.

Description	Product Code	Product Pictures	Scale	Notes / Application
British Railways (Southern Region) / Southern Railway - Headcode Discs	4WH0801401		OO Gauge	Supplied unpainted on the sprue. (pack of 10) <i>These discs have a lamp bracket slot on the back that may allow fitting to your models' lamp brackets.</i>

Headlamps

High Intensity Headlights were introduced during the 1980s in the UK. Most existing locomotives and multiple units were modified with fixed headlights; however where no fixed headlight is available or in the event of a headlight failure then portable High Intensity Headlamps are used.

Description	Product Code	Product Pictures	Scale	Notes / Application
High Intensity Portable Headlamps - Battery Type	4WH0800843 Set – L43		OO Gauge	Supplied with Crystals (pack of 6)
	7WH0800844 Set – L44		O Gauge	Supplied with Crystals (pack of 6)

Description	Product Code	Product Pictures	Scale	Notes / Application
Diesel Loco High Intensity Headlights - 1980s Square Style <i>Note – Diesel Headlight fitting instructions are downloadable from the attachment tab in each respective product on our website.</i>	4WH0802001 Set – HL1		OO Gauge	Dummy Headlights (pack of 4) Supplied with Clear Lenses
	4WH0802002 Set – HL2		OO Gauge	Headlights (pack of 4) Supplied with Clear Lenses and LEDs

Tail Lamps

Tail Lamps are used to confirm to signalmen and operators of the railway that a train is complete.

British Rail Brake vans carried a tail lamp and two side lamps. The tail lamp mounted on the lower lamp iron and the side lamps mounted high up on the brake van rear. The side lamps showing white lights to the front and red lights to the rear by using red removable slide shades within each lamp for the red lights to the rear.

Side lamps had a slot/bracket fitting on both sides so that they were a standard design that could go on either side of the van, and be reversed if necessary.

At night, during fog or falling snow, or in tunnels, the brake van displayed 3 red lights to the rear and a white light on each side facing forward. This was so that loco crew could look out either side of the loco and affirm that the whole train was following the loco in good order.

If the train was routed into a loop or refuge siding, or was on a reception or departure road adjacent to a running line, the red removable slide shade was removed from the side lamp on that side of the van, so that the display was of 2 red lights and a white, in a V shape with the white light closest to the main running line.







If the guard wanted to attract the traincrew's attention to a problem, this could be done by reversing the side lamps to show a red light forward; signalmen and others would also be able to spot this and you wouldn't go far before the train was stopped.

If a train was being propelled with the brake van leading in the right direction along a running line, the two side lamps showed a white light 'forward' in the direction of travel, and the tail lamp was removed.

From the late 1960s BR introduced battery type tail lamps, the oil type lamps being phased out during the mid 1980s. The use of side lamps ceased when BR stopped using brake vans that are not necessary for modern fully fitted block trains.

Tail Lamps

The following lists the styles of tail lamps available from West Hill Wagon Works.

Description	Product Code	Product Pictures	Scale	Notes / Application
BR Oil Type Tail Lamps	4WH0800804 Set – L4		OO Gauge	Solid Lamps, Lenses needs to be painted (pack of 6)
	4WH0800801 Set – L1		OO Gauge	Supplied with Crystals (pack of 6)
	4WH0800803 Set – L3		O Gauge	Solid Lamps, Lenses needs to be painted (pack of 6)
	4WH0800802 Set – L2		O Gauge	Supplied with Crystals (pack of 6)
	4WH0800805 Set – L5		TT:120 Scale	Solid Lamps, Lenses needs to be painted (pack of 10)
	2WH0800813 Set – L13		N Gauge	Solid Lamps, Lenses needs to be painted. Supplied in an assorted pack along with headlamps. Product 2WH0800813

Tail Lamps


Description	Product Code	Product Pictures	Scale	Notes / Application
BR Battery Type Tail Lamps	4WH0800807 Set – L7		OO Gauge	Supplied with Crystals (pack of 6)
	4WH0800806 Set – L6		O Gauge	Solid Lamps, Lenses needs to be painted (pack of 6)
	4WH0800819 Set – L19		O Gauge	Supplied with Crystals (pack of 6)
	2WH0800818 Set – L18		N Gauge	Solid Lamps, Lenses needs to be painted (pack of 12)
Description	Product Code	Product Pictures	Scale	Notes / Application
BR Brake Van Side Lamps	4WH0800817 Set – L17		OO Gauge	Supplied with Crystals and Lamp Irons (pack of 6)
	4WH0800820 Set – L20		O Gauge	Supplied with Crystals (pack of 6)

Crystal Fitting Guide


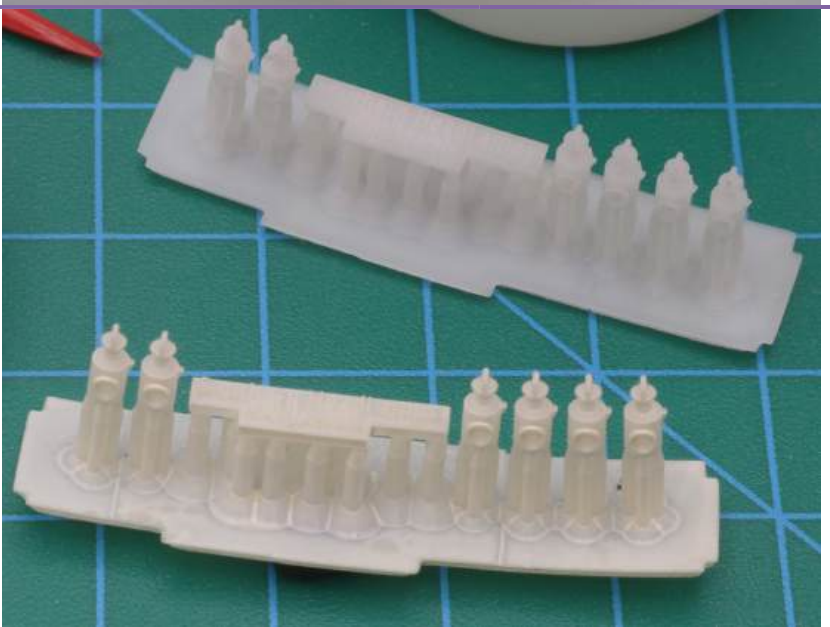
Take your time when preparing West Hill Wagon Works crystal lamps.

The crystals are very small and must be handled very carefully. Tweezers are needed to position the crystals into the lamps. A very small spot of superglue type adhesive may be used to secure each crystal.


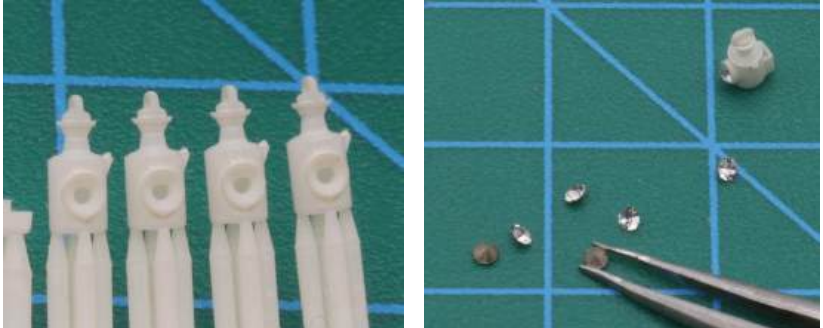

When using superglue type adhesive please always follow the manufacturers instructions.

Step	Action	Pictures
1	<p>Prepare everything you need:-</p> <ul style="list-style-type: none">- Lamps set (do not remove from sprue yet)- Fine Pointed Tweezers- Crystals- Super Glue- Clean Bottle Top (to put a small dob of Super Glue into)- Cocktail or fine pointed stick to apply Super Glue	

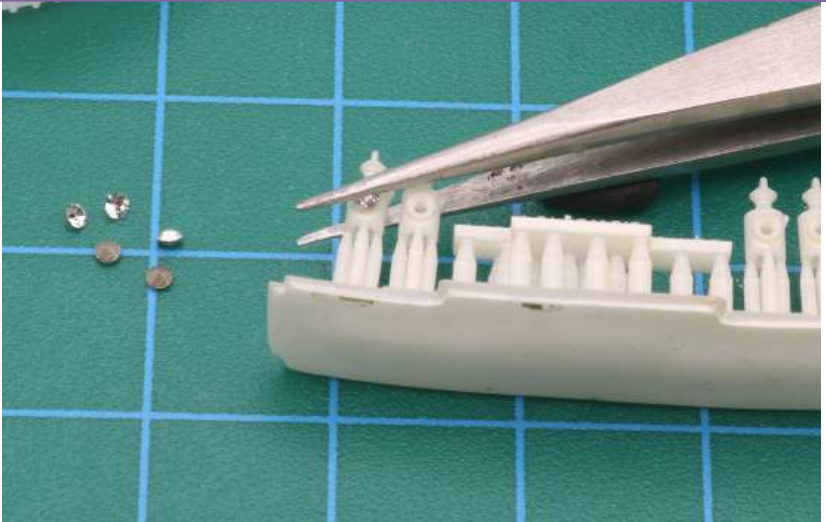
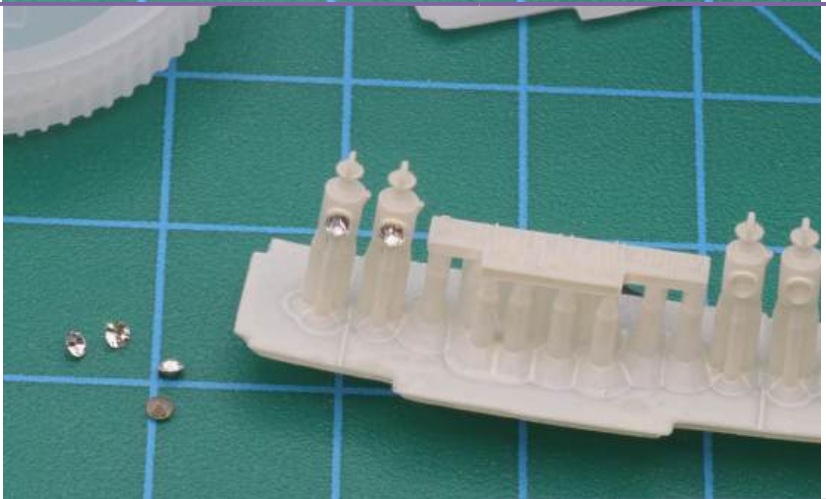
Crystal Fitting Guide

2	<p>You may find it safer to handle the crystals working over a bowl or a tray so if they do ping out of your tweezers then you are less likely to lose them on the floor.</p>	 A close-up photograph showing a pair of metal tweezers holding a small, clear crystal. The tweezers are positioned over a white, ribbed paper plate. Several other small crystals are scattered on the surface of the plate.
3	<p>Before fitting the crystals, apply a very light coat of primer paint followed by a very light coat of white. A slightly off-white tends to look better for lamps rather than a brilliant white colour.</p>	 A photograph showing two strips of crystals. The crystals are small, clear, and have a faceted top. They are mounted on a light-colored, possibly wooden or plastic, base. The strips are laid out on a green cutting mat with a blue grid pattern. A red pencil is visible in the background.

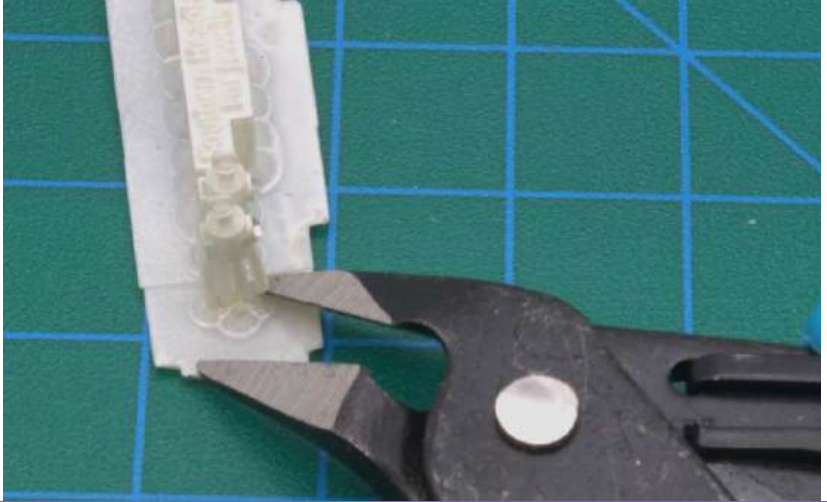

Crystal Fitting Guide

4	<p>For LMS / BR Midland Region lamps some of these headlamps would have retained the LMS black colour however the BR standard would have been white. It's also possible to pick out the lens ring on LMS / BR Midland Region lamps in brass colour before fitting the crystal.</p>	
5	<p>Take a look closely at the lamps, the front of each lamp has a cone shaped recess.</p> <p>Now look at the crystals, the back of each crystal is cone shaped to match the recess in the lamps.</p>	
6	<p>Working one lamp at a time, using the cocktail stick carefully apply a very small spot of Super Glue into the cone on the front of a lamp.</p> <p>Then holding the crystal face upwards in the tweezers carefully place it onto the front of the lamp.</p> <p>Using the point of the tweezers ensure the crystal is sitting central in the cone and level.</p>	

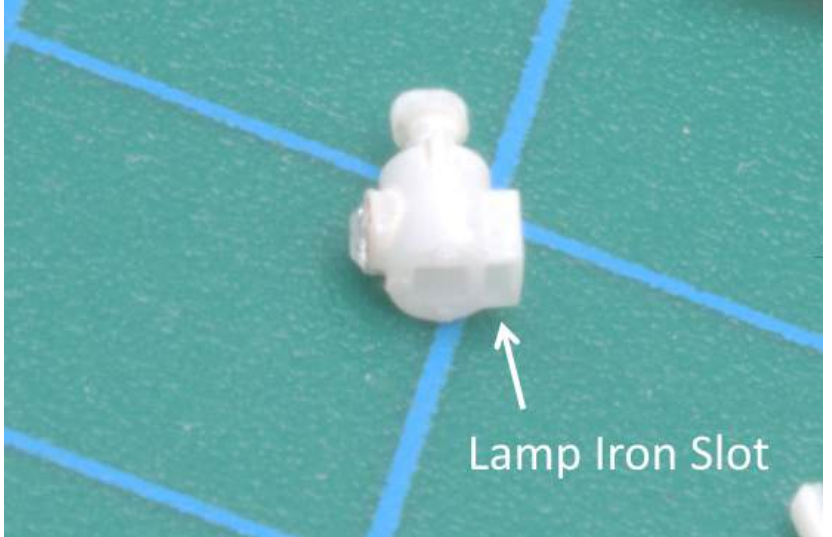
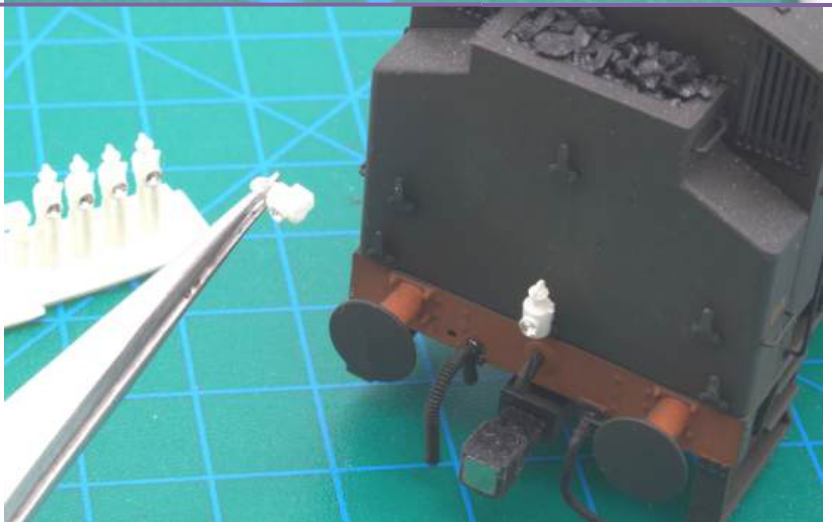
Crystal Fitting Guide

7	<p>Carefully use the tweezers to pinch the lamp and crystal for a few seconds until the glue is set.</p>	
8	<p>Repeat the fitting of the crystals to the remaining lamps</p>	



Crystal Fitting Guide

9	<p>Using some fine sprue cutters carefully snip one or two of the lamp printing supports close to the sprue base.</p>	
10	<p>The lamp can then be peeled easily from the remaining supports.</p> <p>Ensure there are no burrs left on the bottom of the lamp.</p>	

Crystal Fitting Guide

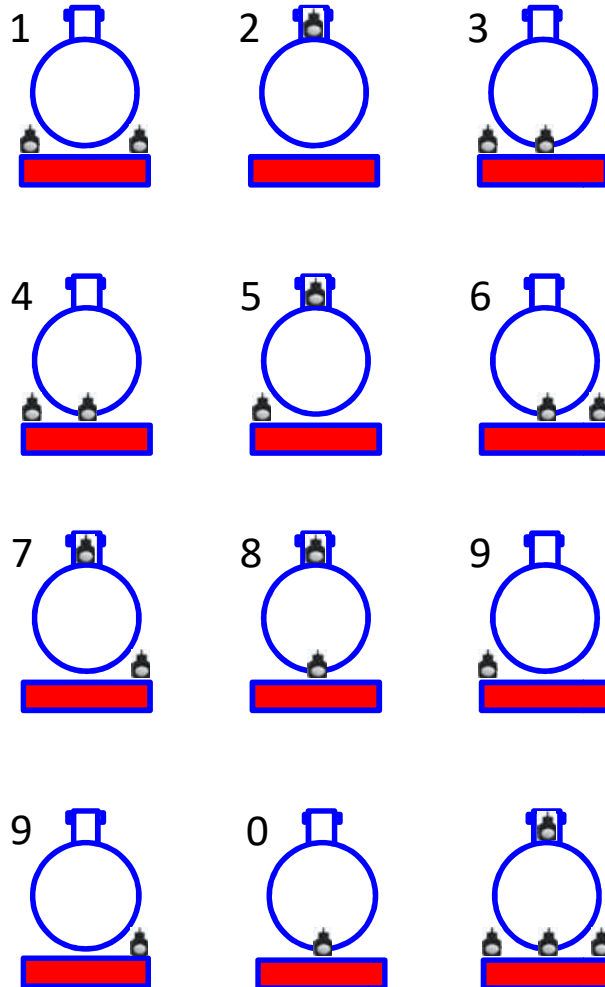
11	<p>Looking at the bottom of the lamp you can identify the lamp iron slot.</p>	
12	<p>Some models have lamp irons fitted that may be suitable to allow the West Hill Wagon Works lamps to be slotted onto them without the need for glue.</p> <p>This may also allow the lamps to be removed and re-positioned as required to depict different lamp codes.</p>	

Crystal Fitting Guide

13	<p>Carefully slot the lamp onto the lamp iron.</p> <p>DO NOT FORCE you will most likely snap the lamp iron off.</p>	 A close-up photograph showing a pair of tweezers holding a small, white, cylindrical lamp. The lamp is being carefully aligned and inserted into a slot on a dark, metallic lamp iron. The background is a blue grid pattern.
14	<p>Ensure the lamps are sitting straight upright.</p> <p>If your rolling stock does not have lamp irons then you can use a small piece of black-tack to affix them.</p>	 A photograph of a black model train engine with a red stripe, positioned on a track. The train has two white lamps affixed to its front. In the background, there is a green hillside, a stone building, and a small green shed.

Use of Lamps on Trains

Locomotive headlamps are positioned on the lamp irons to denote the class of train being operated.



British Rail – 1948 to 1968

Class of Train

- 1 Express passenger, mail or breakdown train en route to a job.
- 2 Ordinary passenger or a breakdown train not going to clear the line.
- 3 Parcels, empty coaching stock or Freightliner train.
- 4 Express freight train, fully fitted.
- 5 Express freight with at least half of fitted stock connected to the locomotive.
- 6 Express freight with no less than 4 fitted vehicles attached to the locomotive.
- 7 Express freight, ballast or empty train, unfitted.
- 8 Unfitted through freight or mineral train.
- 9 Through Mineral or Empty wagon train.
Mineral or stopping goods train.
- 0 Light engine or engines with or without brake vans.

Royal Train

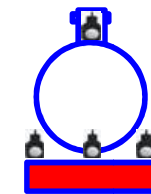
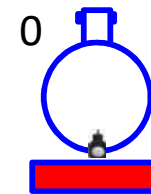
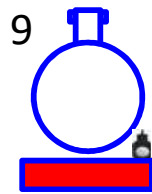
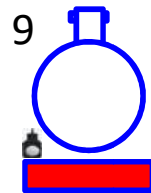
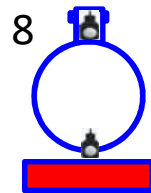
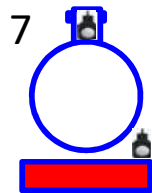
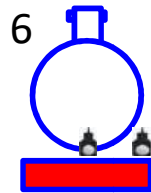
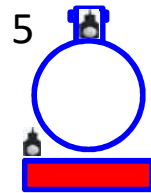
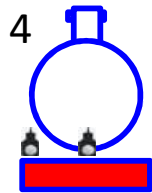
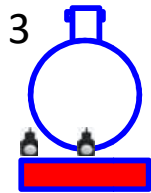
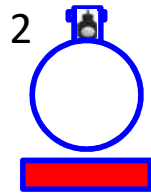
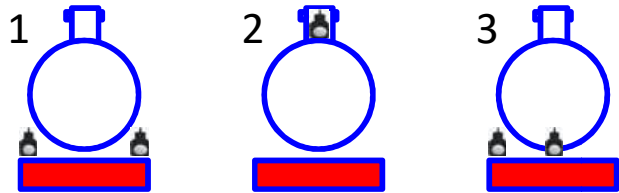
Use of Lamps on Trains

Minor changes were made to the headlamp/headcode classifications following the end of steam in 1968.

British Rail 1968 onwards

Class of Train

- 1 Express passenger or mail, breakdown train en route to a job or a snow plough going to work.
- 2 Ordinary passenger train or breakdown train not en route to a job.
- 3 Express parcels permitted to run at 90 mph or more.
- 4 Freightliner, parcels or express freight permitted to run at over 70 mph.
- 5 Empty coaching stock.
- 6 Fully fitted block working, express freight, parcels or milk train with max speed 60 mph.
- 7 Express freight, partially fitted with max speed 45 mph.
- 8 Freight partially fitted max speed 45 mph.
- 9 Unfitted freight or engineers train which might be required to stop in section.
- 0 Light engine(s) with or without brake vans.



Royal Train

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