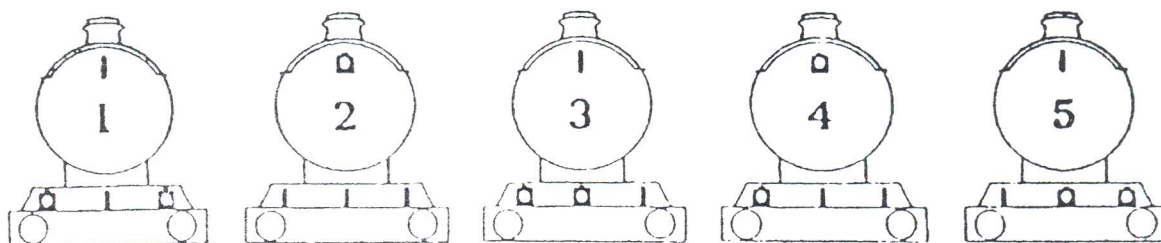


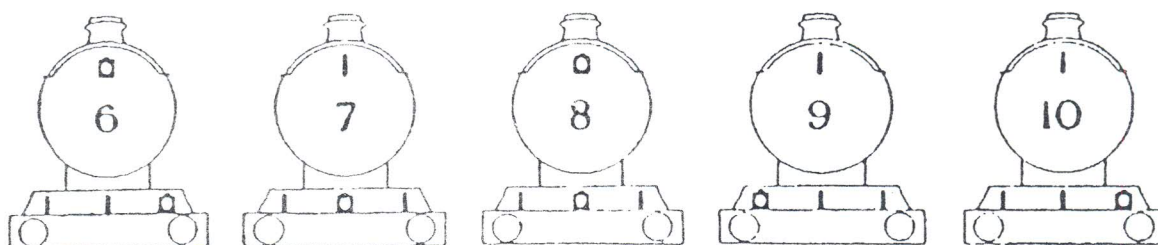
THE HORNBY RAILWAY COMPANY



THE BRITISH STANDARD HEADLAMP CODE

(Hornby Railway Company leaflet provided by Grant Robinson (2724) of the Border Counties Group)

The meaning of the lamps in the position shown is as follows: 1. Express Passenger. 2. Ordinary Passenger. 3. Coaching stock carrying livestock, parcels or perishable goods. Express freight fitted throughout with the vacuum brake operative on not less than half of the vehicles. Empty carriage train. 4. Fitted freight with not less than one-third of its vehicles connected with continuous brake. 5. Fitted freight with not less than four vehicles connected with continuous brake. 6. Express freight or ballast train not fitted with continuous brake. 7. Light engine or engine and brake van. 8. Through freight or ballast. 9. Mineral or empty wagon train. 10. Freight or mineral stopping at intermediate stations.



Replacing Springs

By Tim Oulton (1520)

Judging by some of the telephone calls that I get, there are a number of you out there who would appreciate some advice on replacing springs in clockwork mechanisms. Some do not seem to be aware that a spring can be changed without removing wheels and dismantling the mech, though the mech must, of course, be removed from the loco housing. Indeed, before dismantling any clockwork mechanism, it is a good idea to remove the spring even if it is still good. This reduces the danger of things flying apart when you take the side plate off and you can properly clean and lubricate the spring on reassembly.

To get the spring out without hurting yourself, it is a good idea to have

a) a second pair of hands to help occasionally

b) a means of securing the mechanism, such as a vice or a clamp with a large piece of timber.

You need to be careful, however, not to damage the mech by over tightening. Examine the mech to see how the outer end of the spring is secured and make a sketch if you think you might not remember. In most mechs the end is secured by bending the annealed part over one of the side plate spacers. In the No 1 Special mech, the

prepared end of the spring engages with a kind of stirrup. Prize up the end of the spring using a small but strong screwdriver until you can pass a large nail or similar through the loop in the spring to pull with. If the spring is still intact a couple of half turns of the key will make this easier by relieving the pressure on the outer turn. If not - struggle!

Now secure the mechanism to the bench in such a way that the wheels will still turn. Pull the spring out of the mech allowing, if the spring is intact, the wheels to turn as you do so. Pass the end to your mate to prevent it coiling round your wrist and get him or her to feed the end into a piece of copper water pipe to help control it.

As you pull the spring out it becomes harder to keep the mech running and prevent the spring pulling itself back into the mech. Your mate can keep a steady pull on the spring while you ease it out and use the key to keep the mech running and, at the same time, push the spring out. The inner end of large springs can be quite hard to get out. If there is a broken piece at the inner end I use a strong pair of long-nose pliers to grasp the end and flatten it as much as possible as it comes out and push it out using the key. If pieces break off it doesn't matter, of course, as long as you

have a replacement. If you haven't, remember that springs can often be repaired by shortening or riveting. This, at least, gets the wheels going round again so preserve as much of the spring as you can.

The inner end is usually secured by bending over a bar or it is secured to a spigot with an oval head. This is turned through 90 degrees using long nose pliers to release the end of the spring. Note the arrangement carefully and copy the preparation (bending or drilling and filing) onto the end of the new spring, which should be supplied, with an annealed (softened) end for this purpose.

If your new spring was supplied 'flat', as mine are, it will be easy to work on. If it has been supplied coiled up you may find it best to feed it into your pipe to flatten it sufficiently to work on the inner end.

When your preparation is complete, and any other work on the mech, such as cleaning, is done, secure the inner end of the new spring to the winding spindle in the same way and direction as the old one and use the key to wind the new spring into the mechanism. As you wind it in, lubricate it with a good graphite grease — available from clock repairers or their suppliers and some motor factors. As a last resort I use the lubricant available for motor cycle rear chains sprayed onto a tin lid then wiped onto the spring; this has worked OK for me. It looks like graphite but I cannot be sure that it is.

When all but 6 inches or so is wound in, check that the preparation of the outer end

