

Infrastructure News *ASH Buffer Stops*

Mike Hopps' report covers the installation during 2020 of three new dismantlable low-depth buffer stops to protect the exhibition area of the ASH (Accessible Steam Heritage) exhibition SteamWorks! from rail vehicle movements in the loco yard and running shed.

The buffer stops recently installed in ASH are based on a design that we built from offcuts of old bullhead rail in 2012 at the end of the wash out pit road (below). The rather restricted location precluded the use of a standard buffer stop because of the pathway behind and the maximum length of road required to get the longer locos to the pit. At the time we built it as we went along and it was in fact completed in a day.

Once exhibits started to move into ASH there was a requirement to provide a similar set of stops to protect the public should something move towards the exhibits when it shouldn't and we were asked to come up with a similar solution. In the original ASH design there was to be a wall, shutter or screen between the running shed and the exhibition and these stops were to take up a minimum amount of space, whilst also providing relatively easy access when required to change exhibits from time to time. As it turns out, the wall or shutter idea was never implemented, but the requirement for the stops has remained and so the Infrastructure Department were asked to provide a solution.



beforehand without worrying about which bit was which.

Each stop requires ten pieces of rail and so cutting forty took a while as rail became available.

As we now had three to build - in fact we built four - with one as a working prototype to be installed in OP4 to iron out any snags; it was decided that a modular design of interchangeable parts would be the best solution. The design was based on the washout pit stop, but all the rails were standardised at 1500mm long so they could be cut in bulk





Drilling one of the 128 holes

Positioning jigs were made so that all the holes could be drilled very accurately and then the rails for each stop were colour coded to make assembly easier.

Another jig guided the rail cut off disk on the front leg.

The plates were sourced externally to drawings that we had prepared and were pre-drilled to specification.

Fitting the first stop in OP4 highlighted a small snag with using old rail. The head measurements are not consistent as some rails are more worn than others.

On the day this was a bit frustrating while trying to put it all together, but making some holes slightly oversize solved the problem.

After that we made adjustments to the positioning jigs to account for differing rail head thickness. A tie bar is used to spread the two side assemblies of the stops and to hold them vertical when fitting. Brighton 'P' chairs support the beam with ordinary track screws. Another drilling jig is used to position the holes in the running rails to line up with the plates and the rest of the uprights once the location of the rear posts have been established.



Trial fitting in OP4



Big meccano



Installation in Locomotive Running Shed



It is likely that we will make another three to complete the set in OP4 once all the roads are in place.