Ashes and Dust

By Russell Pearce, Driver

The last time I wrote from the shadowy recesses of shed 75H, I lifted the curtain on what it takes to get an engine ready at the beginning of the day, saying that in most cases a crew must prepare their own locomotive. I also said that on the whole they would have to put it away at the end of the day, a process called “disposal”. At some sheds it was referred to as “squaring away”.

None of these P&D tasks is to be undertaken by someone for whom lifting a cup of tea is a trial. In truth, there is more to be done in the morning on the whole, but we approach the preparation having had a night’s sleep, and in summer particularly it is warm or cool, or at any rate not boiling hot or freezing. However, while there is less to do at the end of the day, this work follows a day out on the road, and, in the near tropical temperatures we have been enjoying lately, it truly comes as a last gasp at the end of the shift.

So what do we mean by “disposal”?

How we used to coal engines.

In short it is the work required to tidy the nursery floor and put the toys back in the box. Arguably the work starts before we leave Sheffield Park for the last train. A pre-requisite is that an engine must be left with sufficient coal to light up the next day, and some margin over that. It must also be left with enough water after filling the boiler for the next day. So for the driver, an assessment has to be made of how much coal remains in the bunker before leaving for the last trip because a decision is needed about when to take coal. In addition, he or she will need to consider what happens when upon return because there is difference in approach depending on whether the stock stays in the platform, whether you can get water without crossing over to the opposite platform, or indeed the interposition of any number of “can you justs”. (Hours of shunting can be heralded at the last minute by a request from someone asking, “Before you dispose can you just!”) All this requires some thinking ahead.

So these days, we often find it convenient to pop on shed to coal before the last trip, and thus save a job when we get back later. Similarly, a large tender engine watered before the last trip will have plenty to fill up later and leave tons of water for the next day. And squeezing these jobs in during the 40-minute run round means 20 minutes saved off the end of the day.

And the thinking ahead about disposal continues, especially once leaving East Grinstead for the last time because firemen will be conscious of the need to arrive at Sheffield Park with enough

fire to get on shed in one piece, without having too much. This influences judgements about what to fire on the run from Kingscote to West Hoathly, and again over the hump through Rock Cutting. I like to close the dampers around about there, or at any rate before descending Freshfield Bank. This is anathema during the rest of the day because closing dampers cools the fire and will often lead to clinker, which is why closing them fully during the day is frowned on.

But at the end of the day this issue ceases to matter, and in shutting them at that time, you slow the combustion down, and so eke out the remaining fire. You also cut off cold air through the ashpan at the same time, and thus also slow the cooling of the boiler. So we contrive to arrive at Sheffield Park, with a decent head of steam to facilitate any shunting, a low fire, and the boiler around half full.

How we once stored the oil before the advent of the running shed.

Once back the stock must generally be berthed. The "A" set (often the vintage or wooden-bodied stock) is popped into the carriage shed, and the "B" set may well finish being berthed on the Newick siding. Either of these takes 15 to 20 minutes, but once done we drift on shed, maybe via the water column (5 to 10 minutes), and berth.

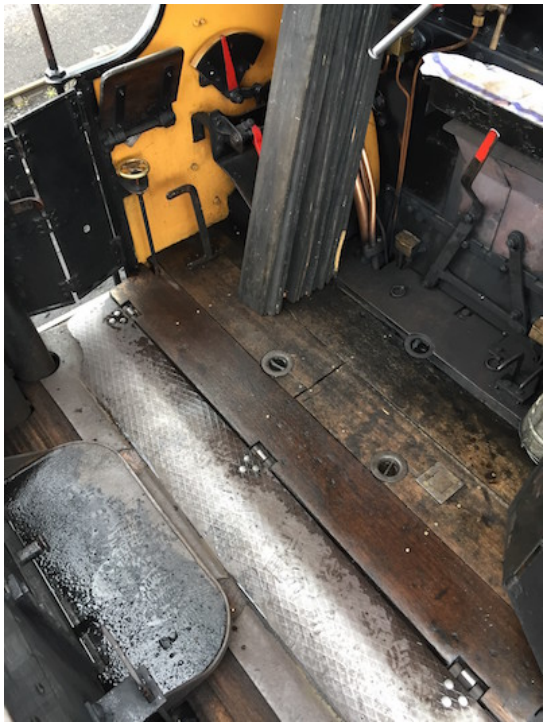
It is unusual to finish anywhere other than on a pit to ease the next preparation, and once there we start in earnest. The handbrake is screwed down, and the vacuum drained from the reservoirs. We do this because as the vacuum is lost the handbrake gets tighter, so after draining we must test the handbrake again, and if it is so tight it can barely move it is "backed off". Not to do so strains the brake linkage and will lead to a lot of bad language days later, when someone wants to move the engine dead and the brake has to eased with a long bar or (worse) a hammer.

Cylinder drains are opened, and the regulator checked to see that it is fully closed. Hydro-static lubricators are shut down, steam supplies to auxiliaries such as vacuum ejectors, atomisers, sanding equipment, and so on are also shut off. And the process of filling the boiler starts; if the water level is quite low, this is done in stages to reduce the "shock" of a lot of relatively cold water flooding the boiler in one go. So in two or three stages we aim to have the water well up into the "top nut" or for smaller boilers actually hydraulic (which means the water will be drawn into the glass from the top steam cock).

It is possible to overfill boilers at this stage, but that is not as bad as underfilling. Water will contract when cold, lowering the level anyway, and steam will always leak away out of valves

which don't fully shut, or through weeping plugs, etc., so a "cold" boiler may show a much lower water level than it did when it was hot. If the engine is left with a higher boiler pressure, this loss will be more marked, so much so that there may be insufficient to safely light the fire next time.

It is experience and judgement that tells the driver how to balance the conflicts between: a) leaving an engine too hot, and/or liable to lose too much water overnight (or worse make steam and blow off when no-one is there); or b) otherwise cool it down too much and too quickly, and leave it stuffed to the whistle. In either case they may incur the wrath of the works staff the next morning.



This photo shows how we like to leave a cab (loco No. 541). Credit to Reuben Smith.

Anyway, the fireman will be tidy the cab, sweep up, and wash down (I like to leave an engine with a washed floor and clean shovel plate. Something that Robin Bell is also very particular about). Meanwhile the driver will be taking a walk round the engine, while other crew start the process of clearing and checking the smoke box. This must be looked at to determine if there are any leaks or spots where air is being drawn in, or there is anything to which attention should be drawn on the driver's ticket.

The driver walks round looking for anything amiss: hot bearings, something loose (e.g., axlebox wedges or keeps) or lost any corks, pins, bolts or nuts. Leaks from plugs and mud-hole doors will all attract attention, as will springs that look as though all may not be well. While underneath he or she may steal a glance at the ash-pan to see that it is not over-full (which is a nuisance in the morning because that will restrict air flows). Any excess ash must be removed as part of disposal. He or she also will make sure that the dampers are fully shut; sometimes ash accumulates to prevent full closure which again permits the ingress of that villainous cold air. The enemy of hot boiler plates.

The fireman also will be throwing a supply down and fill any holes in the bunker behind the door ready for the next crew, if coal is not a taken. The fire will have been looked at, and if it seems as though there is any clinker that will prove bothersome when cold, we break it with the fireirons. In any case, the grate must be fully covered with either dying or dead fire. Anything to prevent cold air coming up and giving the boiler plates "a cold", which leads to leaking stays or tubes and cracks. And while we have our heads in the firebox, a look to see that all is well in there. Sometimes we may leave a tump of fresh coal under the door if the fire is especially low to once again retard the cooling process.

Once all that is done, a dry supply of wood is loaded up into the cab and left where the rain (remember rain? It was very popular here at one time) can't get to it. The very last task is to find a ladder and use it to pop a lid on the chimney. This stops any rain from soaking ash in the smoke-box (very corrosive), but more importantly it impedes the convection of hot air away from the boiler which once again draws cold air in.

All this takes about 45 minutes, or more on some engines, which sounds like not much, but this time is added to the shunting and any watering. And for most crews it is added on to the three hours allowed in the morning for "prep", hence the earlier dash for coal and water before the last trip. In between of course comes the "fun bit" of working a train service. Generally, there are three trips per diagram per day.

So on a Table 2 day, the "B" crew book on at say 7:15 or 7:30 a.m,. off shed at 10:15 a.m., water and on to stock on the Newick, then away at 11:10 a.m. In winter, when trains must be heated, all this comes forward to permit extra time to pre-heat the stock. Anyway, at the day's end we get back to the park by 5:40 p.m.—remember this a "right-time" railway. Then, berth the stock on shed by 6:15 a.m. and book off by about 7 p.m., after the driver has written out his ticket that identifies the crew, how many trips undertaken, any hours of shunting completed, and anything that needs attention by works staff.

So you will see that the day can be quite fatiguing, which is why the timetable allows gaps during which the crew can take "personal needs" breaks, especially at Sheffield Park. But we must take great care to manage fatigue and the effects of heat and cold. In the winter, of course, most of the P&D is done in the Stygian darkness that enfolds the December solstice and either in the pouring rain, or freezing cold, or more likely both at once!

It's called the "Romance of Steam"!