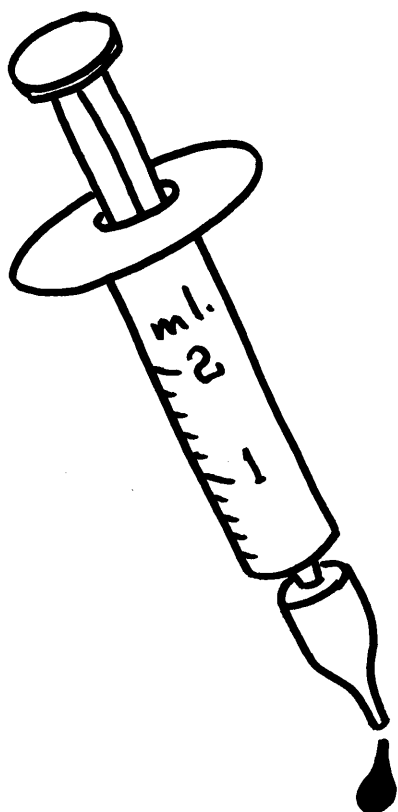


It must have stood on the mantelpiece for a good five years, that little red Mamod with shiny brass fittings. Of course I'd run it the day it was bought: round the kitchen floor hissing steam from every joint — while the missus was out. And a good thing she was, as it never got far without rolling over, little legs kicking like an over-eager puppy. (I wonder how many thousand only ever made that first disastrous run?) I read the magazines; articles with scary titles like "Mamodology" and "Taming the Mamod". I quizzed men who had turned these ornaments into real locomotives. It all sounded beyond me and my Swiss Army knife. Besides, it looked good on the mantelpiece.

My instinct was to keep steam in the boiler as long as possible, so the first step was to fix those leaks. The means were already in the box: a bottle of nice thick steam oil, but no clues about how to get it where it belongs; inside the cylinders. Prise one piston-rod off its crankpin and push it in and upwards, revealing two of the eight steam-chest ports. Squirt the oil directly into both of these, and it'll find its way round to the other six through the reverser block and steam chest passages. ½ml in each hole is plenty. Then when the locomotive is started, steam will blow it into the cylinders to line the bore and the piston-rod nicely before vanishing up the chimney. It can be done in just a few seconds with the engine still in steam, far quicker than servicing a conventional lubricator, and I find it's needed about once an hour of continuous running. An ideal squirter is a tiny 2 ml syringe (begged from the vet or doctor) fitted with a thin plastic pipe (metal would scratch the ports) made by stretching a thick plastic



pipe over a flame. (A bigger syringe will need a lot more thumb pressure, especially on a cold day.) This method won't cure a faulty locomotive, but it's a whole lot better than lubrication by condensate alone. I'm so pleased with it that I've never felt the need to fit 'O' rings or a displacement lubricator.

But although lubrication had increased both pulling power and duration, decent speed control still eluded me. Even if the steam was now going where it was supposed to go, it was still going there far too quickly for my liking. So I put a little exhaust regulator at the top of the chimney, and returned the beast to the shelf for a long wait.

Then one day I was asked to help fill a gap in the proceedings at a public steam show. Stiff and dusty as the Titfield Thunderbolt, the Mamod gallantly descended from its plinth. I lit up, and let it run round light-engine for a bit to clear the excess oil. As I rummaged for my wagons, I gradually became aware of two pipe-sucking old gaffers nudging each other as the tiny locomotive trundled under their noses at one scale mile per hour. (Apparently Mamods aren't supposed to do that.) "Wot yer done t'cylinders, lad?" "Absolutely nothing, sir they're straight out of the box." "Wot's that on t'chimbley then?" I explained. As the Wise Ones shuffled back to the Gauge 1 racetrack, I heard one growl "gainst the grain".

Now I got so mighty-fine puffed-up about this grudging attention that I took to bragging about it, which is when the Editor snuck up behind me and pounced . . .

Take a Mamod to bits, and you find a stubby little exhaust pipe sticking up out of the regulator. I replaced it with a nice long one made from ⅛" diameter copper tube (from any model shop with a K&S Metal Centre) which I bent in an artistic curve that brought it out of the chimney. The end was plugged with a bit of soldered metal. A little sleeve was made of ⅛" bore brass tube (same source), and soldered to a metal disk which acts as a handle and discreetly masquerades as a chimney cap. With the two tubes fitted together, I filed a notch in the side of both to just short of centre. Twizzling the sleeve varies the exhaust outlet from fully open to fully shut — apart from a tiny leak between the two tubes. A vent hole stops that leakage from blowing the cap off. That's it. Cost under a pound, time under an hour. At last I could keep the steam in the boiler as long as I wanted.

Although the machine is now controlled by the combination of the reverser and this new "exhaust regulator", it's easier to drive rather than harder. On all but the hilliest of lines, I open the regulator only upon starting, to clear oil and condensate. Thereafter, it generally stays closed, or virtually so. The reverser is set at whatever it takes to climb the steepest hill on the line, as found by experiment. On downhill stretches, the exhaust throttle limits the speed quite dramatically, giving hands-off running in the best pot-boiler tradition. On a very hilly line, I have to change tactics and lurk at the foot of the grade to flip the chimney cap with my finger as the train approaches. Then it's vital to get to the summit smartish to flip it back to avert a runaway. In other words, back to the bad old days of Mamod-chasing

across the flower beds, but with an easier lever to control than that stiff, hot, inaccessible and very insensitive reversing lever. I arranged the chimney-cap disk to point ahead with the regulator open, and astern with it shut. That means that with the locomotive running chimney first, the merest swipe as it charges by is sufficient to shut off steam, at least enough to make the animal more catchable.

Yes, it does go against the grain to throttle the exhaust of a steam locomotive. But after all, if we use large ports to make a locomotive free-running, why not use a small one to make it sluggish. John Turner and Tony Sant sell exhaust-regulator locomotives and people tell me that they like them. The beauty of the system is that when the load gets heavy, the full boiler pressure is right there in the cylinders where it's most needed, while when speed picks up, back-pressure prevents a runaway. At the same time, it keeps steam in the boiler, giving a far longer run-time between fills, and minimising those embarrassing pauses for breath that follow a typical headlong Mamod dash. And besides, I love that slow, crisp, four-beat "chuff".

So if you have a Mamod on your mantelpiece, blow off the dust and teach it some manners.

