

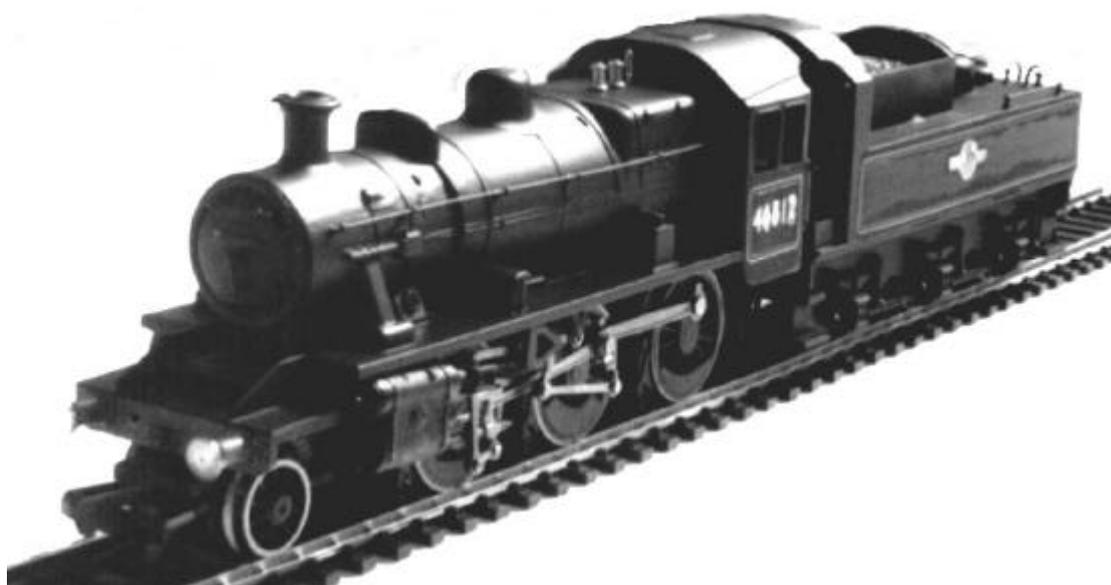
Ivatt's Mickey Mouse

by Steve Oppermann

I had wanted an Ivatt 2-6-0 tender engine for my layout for some time, having always admired the class. I bought a second-hand example of the Hornby model a few years ago but decided that its general appearance did not match up with the standards of my other locos such as Bachmann, Dapol and late Hornby. The wheels in any case would have to be changed as the flanges were too deep even for code 100 track.

So the Ivatt sat in its box and I considered the alternatives – whitemetal or brass kits, scratch-building, but any of these would still require motor, wheels, gears and motion. I had obtained scale drawings of both the tender and tank engines and found that the Hornby body shell was reasonably close in its main dimensions. Why not fit a new undercarriage to the suitably modified and detailed Hornby body?

I already had one of Bachmann's Ivatt tanks and believed it to be the smoothest operating RTR loco that I had used to date. An idea began to form in my mind. Since the tank and tender versions of the loco shared many details and dimensions, could the ready made tank engine chassis be altered to fit the Hornby shell? With both locos dismantled I made some measurements and decided that the idea was realistic.

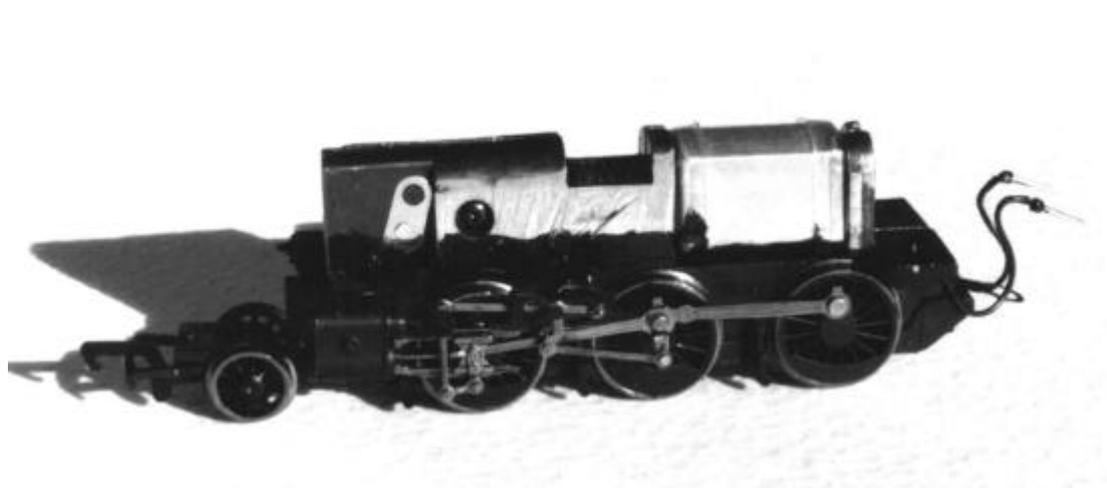


The finished product - a Hornby/Bachmann hybrid Ivatt 2-6-0. Photograph by the author.

I ordered a Bachmann Ivatt tank from Shrewsbury Model Centre, a different model to the push-pull fitted example that I already possessed. This would give me a choice of bodies for the tank and a spare chassis to be modified to fit the Hornby shell. When it arrived, it was one of the later models with blackened wheels and motion. So much better! From Mainly Trains in Watchet came the Romford 10 spoke 12mm tender wheels, handrail knobs and wire, sprung buffers, smokebox dart and transfers.

The Bachmann chassis was completely dismantled and I mean completely! The motor, wheels and motion were put to one side. The cylinders are fixed to the frames with contact adhesive and can be gently levered off. The front pony truck has pick-up wires which are attached to the frames with tiny screws. These need to be removed before the frames can be separated. All the gears and plastic spacers were put aside, taking careful note as to which fitted where. Taking a junior hacksaw and a selection of files, I removed the part of the frame which actually fits up inside the side tanks. Then I shortened the frames, cutting them just behind the point where the rear pony truck pivots. Once the frames had been cleaned up and burrs removed, I was ready to start on the Hornby body. Using a sharp craft knife I pared away some plastic inside the shell. The sides of the firebox area and the backhead needed some attention. I was able to fit the

altered frames quite snugly into the body. In fact since completing the conversion I have not needed to fix the chassis to the body with any screws etc. as the fit is that good. Externally the body and tender needed some work. I removed the whistle and safety valves and put them in a safe place. Next I carefully removed the moulded handrails from the boiler, smokebox, cabsides, tender top and tender sides, using a small craft knife. Also the smokebox dart needed to be cut off to make way for the whitemetal replacement. The buffers were cut off back to the buffer beams on both engine and tender. I had intended to fit whitemetal lubricators but in the end decided that the amount of surgery required to remove the plastic ones was not worth it as they are a fair representation anyway. I cleaned up the plastic surgery with fine wet and dry. In one or two places it is impossible to remove the handrail mouldings without damaging the boiler bands, so I decided to replace those. This I did with fine strips of sticky paper cut from a computer mailing label. Referring to the drawings, I drilled holes in the appropriate positions to fit the handrail knobs. Once I had threaded the wire through the knobs including those on the smokebox door, I stuck the knobs in place with superglue. The tender top rails were done in the same manner. Cabside and tender handrails were bent from wire and fitted into holes drilled top and bottom, once again fixed in position with superglue. A small hole was drilled in the smoke box door and the new whitemetal dart glued in place. The front and rear buffer beams were drilled to take the sprung buffers and these were superglued in place. The tender required very little other work. I drilled the axleboxes from the inside to fit brass cups for the pinpoint axles of the replacement wheels. To couple the tender to the engine I fashioned a small brass figure "8", one end held under a screw which fastened into the top of the plastic block which formerly held the rear pony truck pivot screw. The existing pin on the tender drops into the other end of the figure "8".



The raw Bachmann chassis. Photograph by the author.

Next I cleaned the body shell and tender (minus the wheels) to remove any greasy fingermarks using lukewarm water and dishwashing liquid. When these parts were thoroughly dry, I sprayed them with grey car primer and then two coats of flat black. I used a small brush to apply the red for the buffer beams. I fitted the whistle and safety valves on top of the firebox. Lining on cab and tender sides and the cabside numbers completed the finishing process. I completely reassembled the chassis and lubricated the bearings and motion. The cylinders needed to be glued back onto the frames with a spot of contact adhesive. I fitted the body to the chassis and the wheels to the tender. Time for a test run! The loco and tender ran very smoothly. I did decide however that the tender would benefit from a little additional weight: this has been added. In conclusion I now have a very fair representation of this very useful go-anywhere little loco. The total cost for second-hand loco, Bachmann tank and the detail parts and paint was less than a whitemetal kit plus wheels, gears, motor and frames etc. and I have the spare tank engine body in addition.

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