

# Modell Ost

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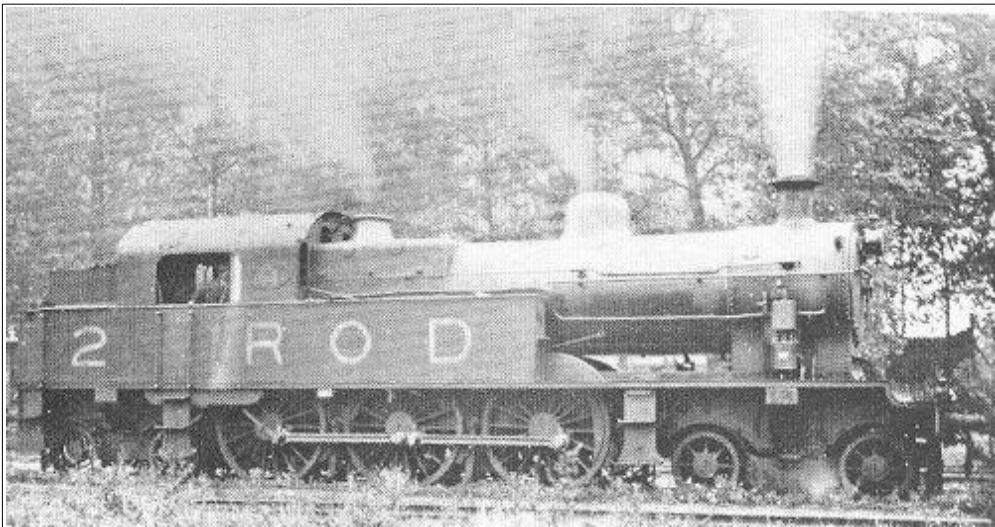
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## BUILD NOTE

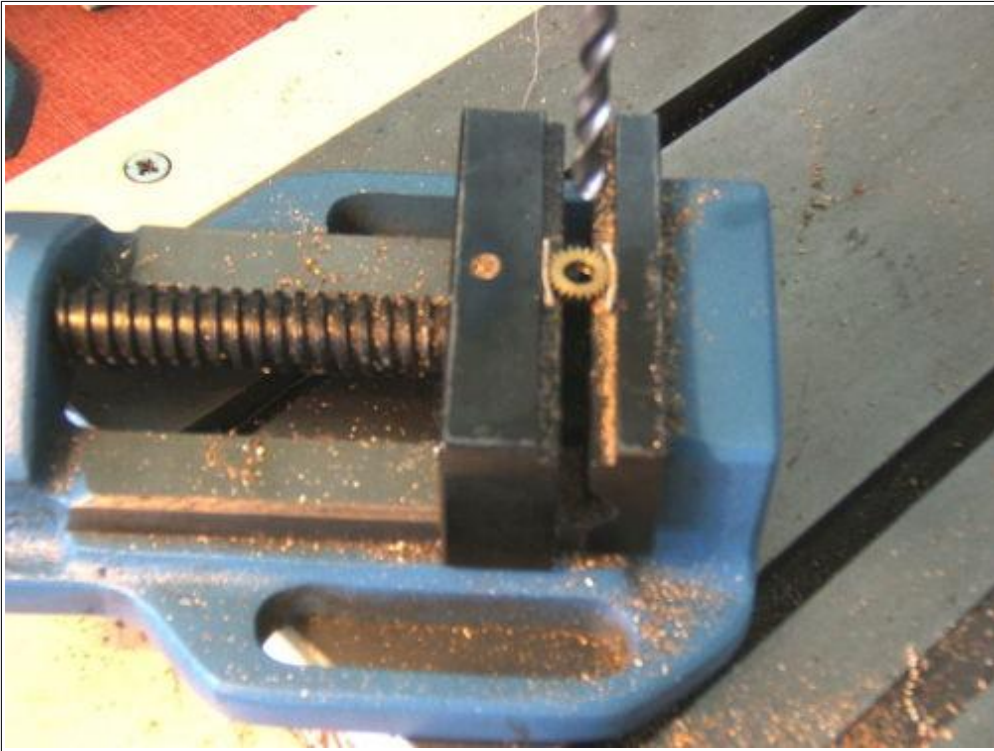
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### DJH Modelloco NS Baltic - 04/11/15

*Of the railways of Europe, the Nederlands Staatspoorwegen could be said to have been the 'most English' as regards the design of its steam locomotives. Take the example of its Baltic tanks which were inside cylindered machines built at a time when almost all other countries were using outside cylinders and valve gear for new construction. Fourteen were commandeered for duty with the Railway Operating Division in WW1 straight out of the Beyer Peacock assembly hall, were taken into NORD ownership at the end of hostilities, and survived until the 1950s, by which time they were carrying SNCF numbers.*



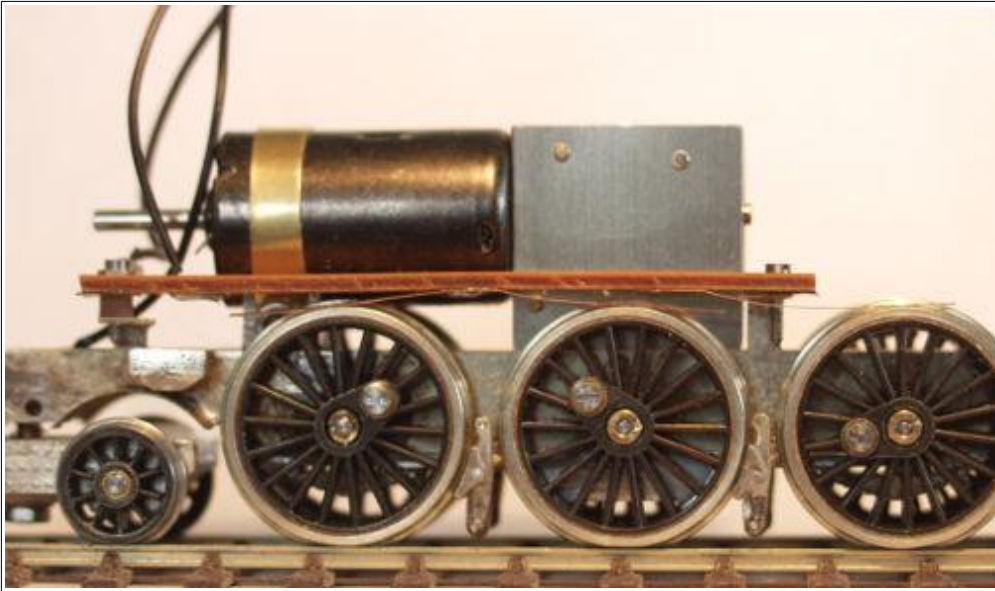
One of the NS inside-cylinder Baltic tanks as lettered for the Railway Operating Division in WW1.



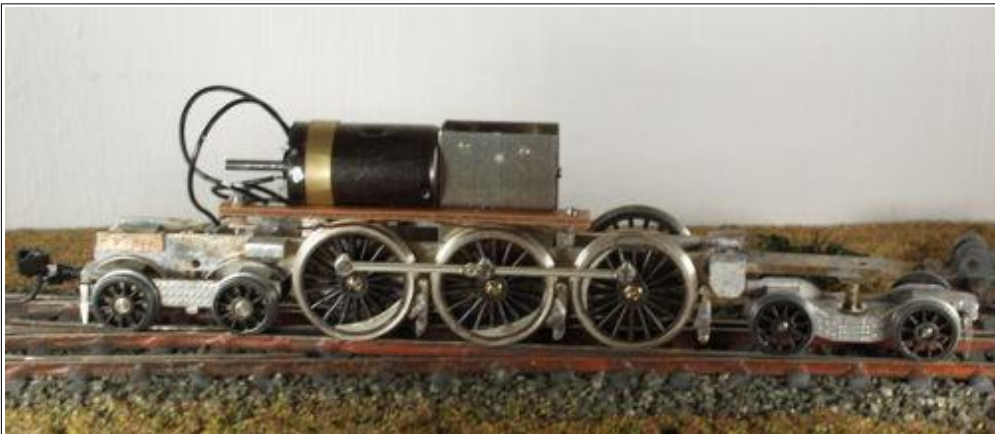
Not really something you want to admit to in polite company. Blacksmith engineering at its rawest. To bore out the final drive gear of the double-reduction set from 1/8 to 6mm so as to accept a bush for a grub screw, I mounted the DJH brass gear flat into the stepped jaws of an engineer's drill vice. Aluminium packing strips protect the gear teeth, and the vice is left to 'float' on the pillar drill table so that the drill can centralise itself to 'follow' the existing bore. Its not pretty, but it works.



The DJH keeper plate casting on this model serves no mechanical purpose. It only needs to hold the brake gear in place, and because the mounting holes are slotted, these can be assembled hard up against the tyres, and then slid back just enough to give the required electrical gap. The final drive gear at the bottom of the gearbox can just be seen, together with its new boss and the cheese head that I used in lieu of a grub screw.



Chassis still in the early stages of testing to see that everything will clear once on the track. Wheels all have their crankpins in - so that each remains matched to the connecting rod hole it was originally fettled to - and the brake gear has been slid back on the keeper plate to give the required electrical gap between shoes and tyres.



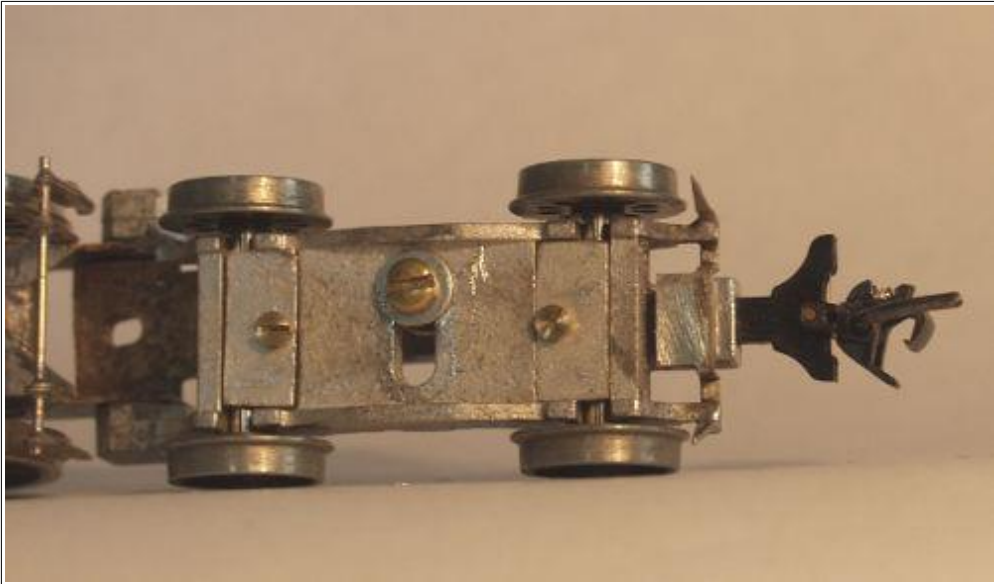
Chassis assembled as a unit, complete with Kadee on rear bogie. The copper clad paxolin strip carrying the phosphor-bronze pick ups is clearly visible, as is the forward extension to the DJH chassis to take the front bogie.



Another view of the rolling chassis, You can see how the pick-up strip has been cut away to clear the side of the can motor, and the brass strap that now stops the motor from pivoting around the driving axle. The whitemetal sandboxes have been soldered to the side frames - but the bogie bolster castings are attached to the body.



Front bogie in more detail. The spring bears on the bogie through a washer, to spread the load over the soft whitemetal casting - and forstall any chance of it's fine end slipping into the gap 'twixt bearing sleeve and bogie guidance slot.



Kadee NEM shank couplers fit into whitemetal pockets. Note the second washer underneath the M2 pivot screw. Wheelsets are retained by individual keeper plates.



Cruel enlargement of the six footsteps. Beware - the two wider of the six have three treads and go under the cab, and yes, first time around I got the in the wrong place. Soldering these up was a bit more fraught than usual, in that I had to clamp the middle tread set in place with a pair of forceps, before moving on to the top one, This is where you need a hot iron, despite the small size of the component, to stop the heat leaking away into the clamp.



Making drop grab handles 1. The handle is bent up in the usual U, and then set end on in a vice so that it is level with a scrap piece of bar the same scale height as the finished handle.



Making drop grab handles 2. Then carefully bend the upright handle flat, using a metal plate that is wide enough for leverage.



Making drop grab handles 3. The finished grab handle.



Making drop grab handles 4. And here is one I made earlier. The beauty of setting the grab handles level to a block in the vice, means that they will all come out the same height - or 'drop'.



Though unpainted, the classic lines of these turn-of-the-century Baltics really start to shine through here.





The low light really catches here on the smokebox detail of the model. Note the lamp irons, and the way that care spent in getting the handrails and pipe runs straight and level along the boiler lifts this from being merely a kit build into a miniature of the real thing.



Rear view of the unpainted model. The bunker rear fits between the two main side tank and bunker sections, so the rivet line is unavoidably 'set in' further than it should be. Handrails and bunker steps are fixed with superglue - steps are all soldered on to the underside of the footplate.



Lining and lettering is one of the most time consuming aspects of building locomotives and rolling stock. It can take two or three days before one side is finished, and then you have to wait for it to dry thoroughly before flipping the model over to do the other side. Here the high-resolution printed transfers - complete with what should have been matching colour background to the Humbrol gray I chose - have been 'set' onto the body, using Walther's Solvaset decal softener. Once all the air-bubbles are either lanced or have vanished, it will be time to paint around each white letter and number with a fine brush, effectively using the transfers as a 'painting guide'.



This is the point where I start to breathe easier in any build - when the body is lettered and the whole thing starts to look like a locomotive. Black areas I generally paint with a brush. For smokeboxes and other 'difficult' areas, I use a OO brush to define the edge, and then paint up to that rather than attempt to do it with a broader brush in one go.



ROD 6 from the rear three quarters. Autocouplings for European prototypes are always something of a compromise. You can see how far the Kadees need to project beyond the buffers to ensure that there is no chance of buffer locking on hidden curves and in fiddle yards. I have to admit that I am still not too sure about the colour, but it certainly does give the locomotive an attractive 'works gray' look about it - especially with a dash of red on the buffer beams and the Beyer Peacock makers plates.