

Prototype Info

The O&K well tank was available in a range of standard designs and primarily marketed as a 'contractors' type locomotive, supplied to small industrial firms for internal networks, construction projects and many were sold for industrial service on sugar cane plantations. In the UK there are a number of examples preserved, notably at Bredgar in Kent and Statfold Barn. Our model depicts a typical example and is based upon prototype drawings. The model can be built with or without the tender.



About the kit

The kit is comprised of a fret of etched nickel silver detail parts and a 3D printed plastic body shell and detailing parts. Only simple folding of these parts is required and they can all be glued in place. We recommend sparing use of liquid superglue for assembly, ideally using a bottle with a thin applicator nozzle.

Due to the nature of the 3D printing process, some support wax material may still be present on the body shell. The plastic used is quite brittle so handle the raw print with care, yet it is easily cleaned up and smoothed with a sharp knife and fine wet and dry paper or emery boards - and then rinsed in white spirit.

The kit is designed to fit a Bachmann N gauge 'Thomas' Percy chassis. The mechanism is well known for its good running qualities. Please read assembly notes for details of how to fit the chassis.

Please note this is a scale model for adult collectors and not intended for children under 14 years of age.

Assembly Notes

Parts required:

Styrene section or scraps.
Glazing material.
Superglue.

Tools required:

Sharp craft knife or scalpel.
Tweezers and small screwdrivers.
Emery paper or boards.

1 • Clean up the 3D printed body

Use a fine wet and dry paper (640 then 1200 grade if possible) in water to achieve a smooth finish to the cab rear, sides and tanks. It is also important to remove any residue from the smooth inside surfaces of the print. If you superglue a small piece of wet and dry paper to the end of a matchstick you can get into some of the harder spots. Once you are happy with the finish, rinse the model in white spirit to remove any traces of printing residue or grease from handling.

2 • Check the donor chassis

Before removing the body from your donor locomotive it is suggested you run the model in following the manufacturer's instructions. The body is removed carefully using the small 'X' screws on the underside. Either loosen the keeper plate and pop out the couplings, or cut these off flush. Remove the screw holding the circuit board, so this can be tucked to the side of the motor. Check the chassis fits the body opening, if necessary adjust the body carefully with a blade or file. Superglue the cylinders to the chassis and smooth the top surface, if required.

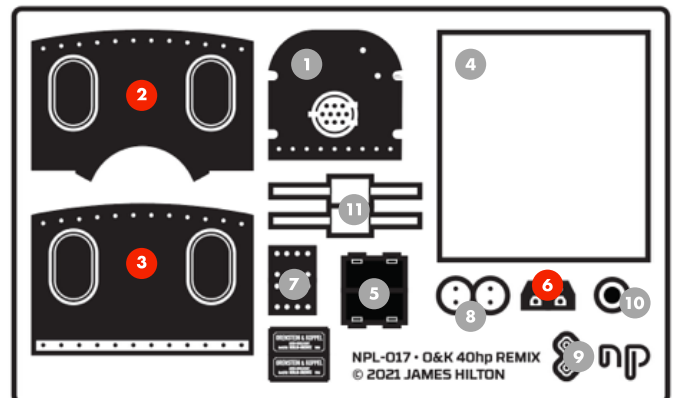
3 • Assembly

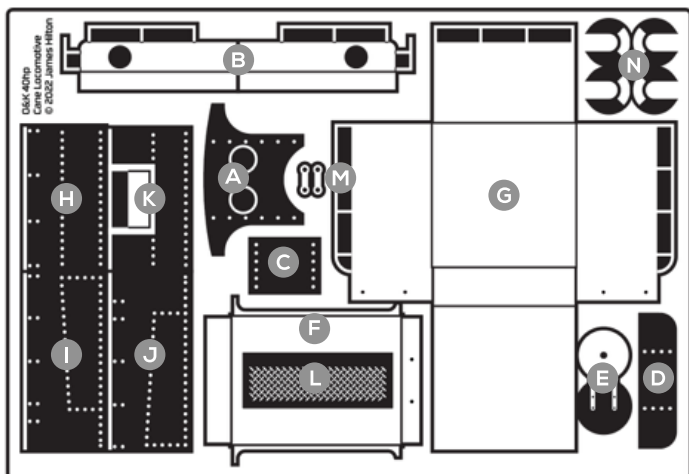
Carefully remove each part from the fret using a sharp knife on a cutting mat or similar hard surface to minimise the risk of damaging thin parts. Clean up the tags.

The back head (1) should be fitted first, before adding the cab front (A). The roof (4) is gently rolled or bent to shape, keep checking to ensure a good fit. The tool box hatches (5) fit on the lower cab sides, position can be estimated from photos. The smokebox has the riveted panel (7) applied to the lower sides. This should be gently bent to a slight curve using your fingers. The water filler lids (8) are an optional part. Tank top fuel rails are optional, and folded up from (B). Front (C) and rear (D) buffer beams are fitted to the locomotive (omit the rear if adding a tender). The smokebox door (E) folds in half and is glued in place in the centre of the smokebox. 0.4mm wire is used for the cab handrails and the water filler handles. Bend these up from brass wire and superglue into position.

Locate the detail part sprue, remove the pair of clack valves and fit to each side of the boiler in the pre-formed holes. The hole should be on the bottom. Bend up the feed pipe using 0.4mm brass rod, studying prototype photos for the shape. The steam valve fits to the side of the dome. Add the regulator with 0.4mm brass wire, terminating in the cab with a 90 degree bend above the firebox. The steam feed pipes are bent from 0.6mm brass rod, one from the steam valve to the cylinder, and a pair of shorter ones, linking the cylinder with the etched plate fitted to the lower sides of the smokebox.

The pair of small etched handwheels (9) fit on the clack valves, and a short section of plastic sprue in the hole in the smokebox door will support the larger etched handwheel (10). Remove and fold up the cab steps (11) remembering all etched lines are on the inside of the bend. The flat piece goes against the rear buffer beam, the short tab glues under the cab floor. If you are not adding the tender the couplings can be fitted to the front and rear buffer beams. The short one goes on the front, long on the back, the lower edge should be flush with the bottom of the buffer beam to match your other rolling stock. If adding a tender drill a 0.4mm hole in the centre, 2mm from the bottom of the rear buffer beam and form a small hook from 0.4mm brass wire.





Tender

The tender is formed from etched metal and can be folded up without solder, all half etched fold lines are on the inside of the bend. Begin with the base (F) and fold down the sides and ends. A 'hold and fold' can be helpful, otherwise gentle scoring of the fold lines with a blade can help form a sharp clean bend. The body (G) folds up to form the bulk of the tender. Begin with the piece without fuel rails, this folds to form the inside 'water tank', and will match the shape of the rivets on the half etched overlays so should be on an angle. Fold up the end, and then the sides, and then superglue these along the joins, including the coal space inside. Centre the body (G) over the base (F), noting the holes in the base are at the front of the tender, and glue together.

The overlays (H - K) are added with thin superglue over the body. Note the parts (I) and (J) are handed to match the water space inside the body. The inside K should have the coal hatch at the top. The fall plate (L) is added to the top of the chassis. Handrails can be formed from 0.4mm brass wire, glued into place.

The coupling (M) should be gently twisted in the centre to the two loops are 90 degrees to one another. Thread this onto a length of 0.4mm brass rod bend to fit the holes in the front buffer beam of the tender. Add the 3D printed coupling to the rear of the tender buffer beam. Glue the plastic truck frame to the underside, note this is not centred, but sits slightly towards the rear.

Going further

The backhead can be detailed with bits of wire and sprue cut to look like the collection of valves and pipework that sit in top of the boiler in the cab. RT Models offer an etch of small hand wheels and dials that can be used to detail this area. A small handrail knob can be added to the steam dome, and fuse wire used to create a whistle, and a matching piece hanging down inside the cab will look like the pull chain. Prototypes were sometimes supplied with disc wheels, overlays (N) are provided to fit over the spokes on the chassis, secure with a touch of gel superglue.

Painting and finishing

Often supplied in colours specified at purchase, many have carried quite bright colours in their lives. Pick out the window frames, clack valves and safety valves in an appropriate metal colour and the steam pipe to the front cylinders was often lagged, so appears light grey. Paint the works plate black, once dry clean off the lettering with wet and dry. Secure using a spot of superglue on the cab side.

To improve the performance of the model it is suggested that lead is added within the side tanks. This is available from Eileen's Emporium, plumbing suppliers or eBay. Our prototype uses a thin sheet that is easily cut and then folded to size. It is recommended that this is secured with superglue NOT PVA.

About EuroNarrowGauge

EuroNarrowGauge was founded in 2014 with support from Narrow Planet. This kit is part of an expanding range of European prototypes and was designed by James Hilton. If you have any queries about the model or instructions please get in touch.

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