

# NSWGR Class BWH Hopper Car Roof Kitset in 7mm Scale

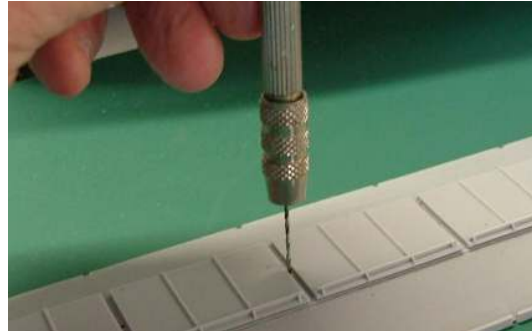
## ASSEMBLY SEQUENCE

The resin parts in this kit are manufactured using a wax based release agent which needs to be removed to enable glue and paint to adhere properly. Either scrub the parts in lukewarm soapy water (**not hot** - heat may distort the parts) and rinse with clean cold water or wash the parts in clean white spirit. In either case take care with fine details to avoid breaking them off and ensure the parts are dry before continuing with assembly.

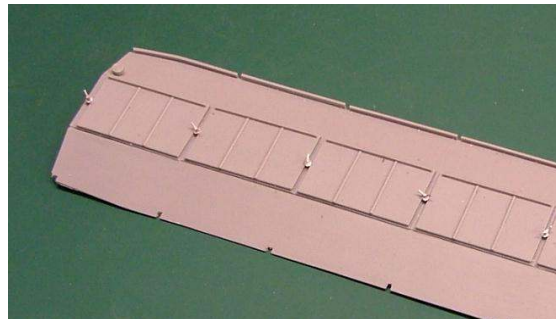
Similarly, pewter parts should be washed in warm soapy water and rinsed and dried to remove casting residues that may not be visible.

Prepare the roof casting by cleaning up any moulding flash with files and/or abrasive paper.

Locate the seven 'pop' marks on the centerline of the roof, one between each roof hatch, and one more on each end of the wagon roof, and drill 1.2mm holes at these points to receive the cast pewter hatch clamps.

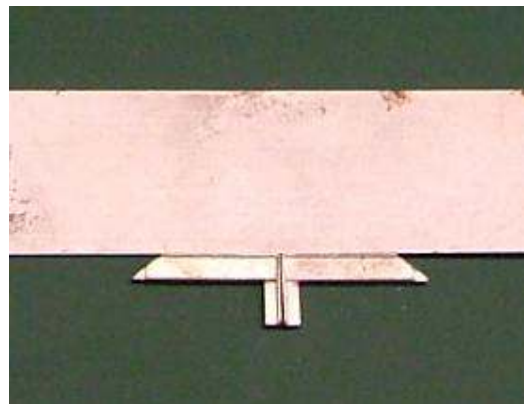


Remove seven hatch clamps from their sprue and fit to the 1.2 mm holes and fix in place with super glue or super glue gel.



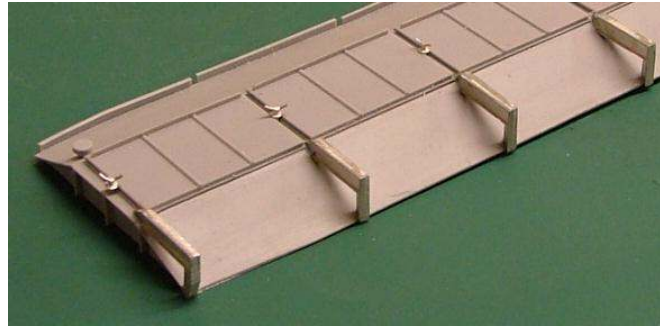
Identify the seven roof walk supports. Five have plain vertical upstands, and two have wider upstands that are sloped in at the bottom. These latter two are to be fitted to each end of the roof; the other five in the intermediate positions. The side of the roof to which these are to be fitted is the side that does **not** have a circulate vent cap at each end of the roof.

Check the five intermediate supports for squareness of the upstand. These are prone to minor distortion in the casting process and may require a 'tweak' with flat nosed pliers to straighten the upstand. Offer pairs up to a straight edge to check there is no gap between the upstands and correct if necessary.

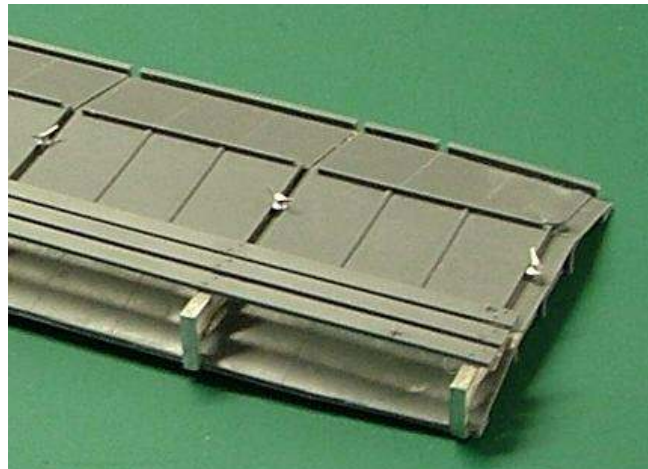


The height of the upstands from base to top edge should be 10.5 mm. File the bottom edge as necessary to square it off and ensure that all seven supports are the same height.

Fit the supports to the roof casting with super glue gel ensuring that the bottom of each upstand is flush with the underside of the roof casting and that the support is properly seated in the groove between (or at the end of) the hatches. Fit the end supports first and sight through for consistency of height as you fit each one to ensure a level walkway.



Familiarise yourself with the three walkway strips. The outermost strip has a handrail fixing point cast into it about 14 mm in from each end. The innermost strip has handrail fixing points cast in about 4 mm in from each end. The middle strip has no handrail fixing points cast into it. Do not remove all the flash from between the strips yet as they have been cast in correctly spaced relationship to one another and can be more easily installed whilst still joined together. Do remove flash in the vicinity of the surfaces that will be in contact with the support brackets. Fit the three walkway strips to the supports, locating the outermost strip 5 mm inboard from the outside edge of the supports. Affix in place with superglue. If you have separated the strips, space them evenly so that the overall width of the three strips is 12 mm.



To fit the roof to the hopper wagon, ensure that the top edge of the hopper wagon is dead flat by rubbing it over a sheet of abrasive paper on a flat surface. Similarly rub down the underside of the roof assembly to remove any glue residue or any hint of the walkway supports protruding below the underside of the roof.

Fit the roof support plate by fitting between the top edges of the body noting that the notches in the plate are intended to clear the tops of the vertical braces on the inside of the wagon sides. These notches may require a little easing with a file or craft knife to ensure a close fit of the plate to the wagon top side edges. Tape the plate in place with the top surface flush with the tops of the wagon sides.



By accessing through the rectangular holes in the roof support plate apply super glue to the joins between the six support legs and the inside of the wagon sides. When these joins are fully set apply super glue to the joins between each side of the plate and the tops of the wagon sides allowing the glue to be drawn in by capillary action.

Check again that the top of the wagon provides a flat platform to accept the roof assembly and rub down on the sanding block if necessary to remove any excess glue or other irregularity that may have arisen in assembly.

Glue the roof assembly to the wagon by placing it with even spacing at each end which should result in correct placement along the edges.

