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BKD prison van Assembly instructions

Four BKD prison vans - Nos. 589, 600, 678 and 711 entered service in 1915. They were used to transport prisoners to and between the many gaols located within NSW. They were timber bodied, had a steel underframe and were fitted with 2AD bogies. When built they were gas-lit with a large gas cylinder fitted to the underframe. They were converted to electric lighting in 1932/33. Nos. 678 and 711 remained in service until 1973/75 whereas Nos. 589 and 600 were condemned in 1952 and became Way and Works vehicles.

The kit is primarily based on BKD 678 which is preserved by the Dorrigo Steam Railway & Museum. BKD 600 is at Goulburn while BKD 711 has been restored at Thirlmere.

Recommended adhesives:

Superglue for polyurethane parts eg. Green Zap a gap. Some brands of superglue will not stick the plastic used in this kit. Unless you know a particular glue will work, testing the glue on some scrap is recommended.

Acrylic contact adhesive eg. Selley's Kwik Grip for clear window material.

Recommended bogies:

2AD bogies can be sourced in RTR form from SDS Models or in kit form (when available) from Stephen Johnson Models.

Assembly sequence:

1. Remove any flash from the window openings with a sharp knife. Take care to avoid damaging the window frames. A knife with a narrow pointed blade is recommended.
2. Clear out all the holes for the hand rails with a 0.4 mm drill bit if necessary.
3. Cut the clear glazing material and white styrene into pieces ready to fit into the cast window openings. Put these aside until the car has been painted. Don't remove the protective plastic coating from the clear window material until they are about to be glued in place.
4. Glue a piece of 8 mm angle to the inside of each end to support the floor. The flat surface should sit level with the bottom of the end.
5. Assemble the sides and ends. It is best to trial fit each joint to ensure the parts fit neatly together before applying any glue. Use the gutter line as a guide to locate the ends at the correct height. Make sure the resulting assembly is square and straight.
6. Fit the roof insert into the top of this assembly noting that the roof is directional. The hole for the single centre vent on one end goes above the storage compartment. Line the roof up with the curve at the top of the inside face of the sides and glue it in place. Fill the resulting joint with automotive body filler and remove any excess with wet and dry sandpaper wrapped over a small flat block. *Take your time at this step. It can take up to three cycles of filling and sanding to get the roof surface smooth.* Spraying primer onto the roof will identify any defects in the surface. When satisfied the joins are smooth, glue the vents in the holes provided.
7. Two buffer beams are supplied - one for Kadee couplers and the other for screw couplers. Select the one you want, drill a 0.65mm hole through each buffer stock and glue in a brass buffer. Glue a completed buffer beam below each end of the body.

8. Like the roof, the floor is directional. A small '*' identifies the end of the floor that goes under the storage compartment. For Kadees, mark the location of the coupler's mounting hole on the floor. Drill a 2.9 mm clearance hole through the floor for the coupler mounting screw (Diagram 1). Then drill a 2 mm tapping hole through the angle that supports the floor then tap the hole with an M2.5 thread. Attach the Kadee and the floor to the body with an M2.5 countersunk head screw at each end. If using screw couplers, follow the same procedure to attach the floor to the body but don't fit the screw couplers yet.
9. Drill a 2 mm hole in each bogie bolster and tap an M2.5 thread to accept the M2.5 cheese head bogie fixing screws. Fit the bogies to the floor and check the coupler height. The floor should be at the right height for SDS bogies but if not, adjust as necessary.
10. Glue the battery box and generator to the pads on the floor marked 'B' & 'G'. The circuit board is glued to the two vertical posts. Glue the two hand brake brackets to the floor (the bracket with the ratchet goes on the battery box side). Glue the brake cylinder to the pad marked 'W'. Glue the air reservoir to the little stand on the edge of the floor so that it will sit level with the bottom of the solebar.
11. Fix a step under each centre door. Bend and fit grab rails from 0.3 mm brass wire. Door handles and hand rails are bent from 0.45 mm wire.
12. Cut the two hand brake wheels from the etch. Fold them over to make a double thickness. Fit short pieces of 0.3 mm wire in the holes and solder together. Solder pieces of wire into two of the locking handles. Glue the brake wheels and handles into holes drilled in the bracket.
13. Fit and glue an air hose in the socket below the buffer beam. It may be necessary to file some of the flash off the sprue to get a neat fit.

14. Clean the model then give it a coat of a suitable etch primer. Once thoroughly dry, paint the model with your preferred brand of paint. In service, the BKD's were only ever painted Venetian red. The roofs quickly weathered to black-grey. The underframe was also black. Seal the model with a gloss coat and apply the decals. Use of decal setting solution is recommended. Seal the decals with another coat of clear gloss paint then give the model a final spray with Dullcote. Brush paint the grab rails black.
15. If using screw couplers, fit and attach the painted couplers to the model now.
16. Remove the protective layer and fix the glazing material inside the windows.

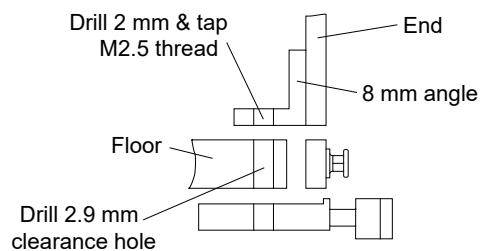
Miscellaneous notes:

Sprung buffers can be fitted to this kit by using a SJM sprung buffer kit or sprung buffers from Wizard Models in the UK. Fitting sprung buffers will require these instructions to be varied.

Underfloor piping, if required, can be fitted by referring to the attached diagram.

Toilet outlets can also be fitted however they will foul the bogies. For this reason they have not been included in the kit.

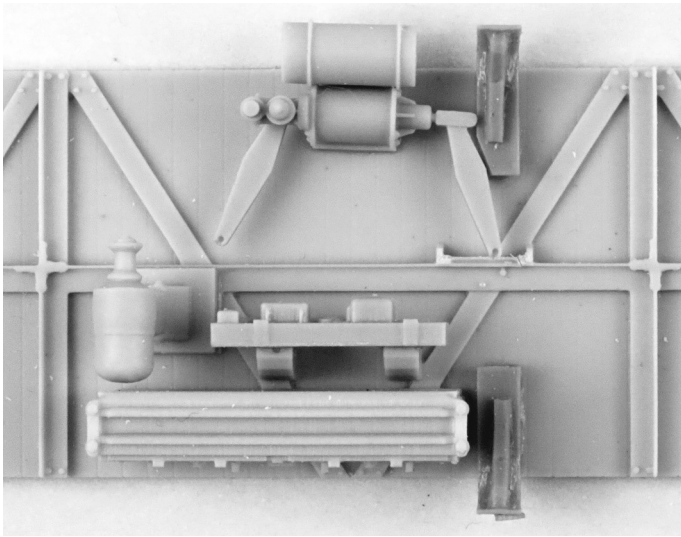
Diagram 1.



References:

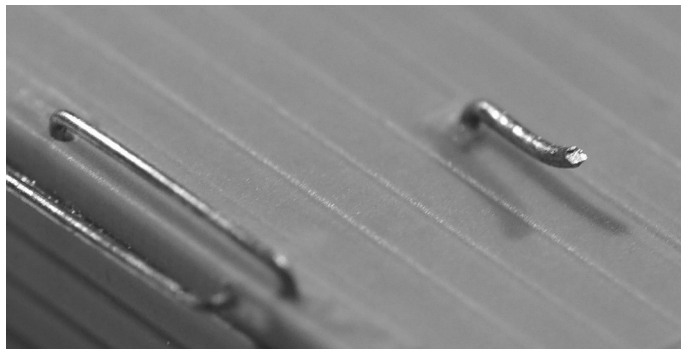
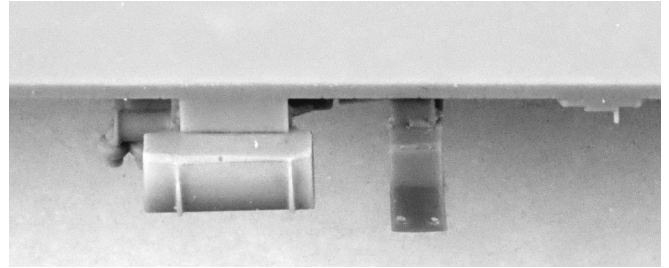
General assembly techniques: Branchline Modeller No. 1

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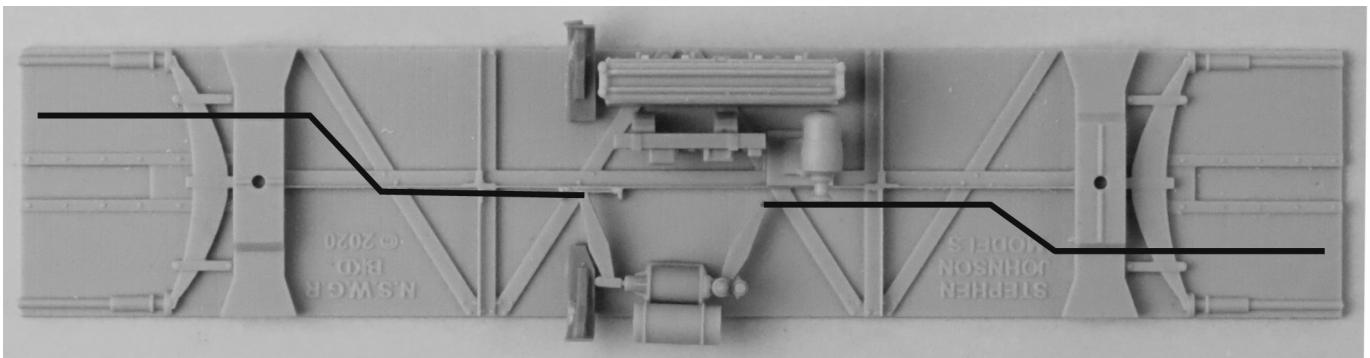
LEFT: Arrangement of the various underbody detail components.

BELOW: The air cylinder and the hand brake brackets overhang the side of the floor so they can sit below the solebar underneath the side.



LEFT: Arrangement of the door handle on the storage compartment at one end of the van.

BELOW: The location of the brake rodding should you wish to add it.



BOTTOM: Arrangement of the door handles, hand rails and the step below the door on the side of the van. Note the centre roof vent sits above the storage compartment at one end of the van.