2mm Scale Association Wagon Underframe Kit Part No 2-332

This kit represent a typical 10ft wheelbase, 17'6" over headstocks, wooden chassis and conforms to the dimensions recommended on DRG WS34 in the 95/96 Yearbook. To complete, it requires 2 pairs of wheels on 12.25 LG. axles (3 hole disc 2-205, 8-spoked 2-209 or open spoked 2-213), set of 4 wagon buffers 2-441 or 2-443, 4 top hat bearings 2-041, set of 4 cast axleboxes e.g. RCH 2-413, couplings if required e.g. BB or DG. 2-110 and approx. 25mm of .010" or .012" diameter Brass or P/Bronze wire.

The kit can be constructed with the following variations:-

- Morton brakegear having single 'V' hangers and operation via a cam on one side.
- Independent either side brakes with double 'V' hangers and no cam. (See □)
- Etched buffer beams as part of the chassis.
- Etched buffer beams discarded where the beams (0.75mm thick) are built integral with the body.
- Automatic coupling support platforms need not be formed up unless required.
- Coupling hooks are provided but may not be applicable.
- Can be converted to metal underframe version by using separate accessory kit Part No. 2-337.

Separating the parts:-Place the fret on a hard surface with the 1/2 etch side of the component retaining tabs upwards. Cut the tabs close to the waste material by pressing down firmly with a sharp curved scalpel blade. When the components are free, closely trim off the remainder of the joining tabs in the same way. No other cleaning up should be necessary. Do NOT separate the solebars from their backing strips or separate the three components of each buffer beam.

Preparing the parts:-Generally all 1/2 etch bend lines are on the inside of the bends. Ensure that all bends are at a true 90°. The recommended solder is Carrs 188 paste applied very sparingly with a fine paint brush e.g. size 000. Suggested adhesive is Loctite Super Glue 3 or similar.

Chassis/'W' Iron Unit:-Bend buffer beam supports to 90°. Cut 2 off joining tabs securing each coupling platform and form to shape. Locate platform inner flanges into the slots at each side and solder. For Morton brake version break off the 'V' hangers at the bend line and discard them.
□ For independent brake version bend the 'V' hangers to 90°.
Bend 'W' irons to 90°. Insert top hat bearings and solder ensuring that the bearing flange sits square in the 1/2 etched counterbore.

Brake Unit:-For a Morton version bend at 90° at bend lines. Note that 4 location tabs will stand proud of the flat surface that mates with the underside of the chassis/'W' iron unit.
□ For an independent brake version, separate the two halves of the brake unit at the centre line, bend the side with one short location tab with the half etch bend line inside the bend. Bend the side with the slot within the bend line with the 1/2 etch line outside the bend.

Solebars:-Bend back the two backing pieces at the hinge points to form double thickness having applied minimum solder paste between the layers. Apply heat on the inside.

Buffer Beams:-Concertina the three thicknesses to form the beam with the "hinge" half etches to be outside the bends. Squeeze flat in a vice having applied a little solder paste or adhesive between the layers. Take care not to fill the holes. Align the buffer holes if necessary using 0.8mm dia. pins or drill shanks. Carefully smooth the edges and remove the temporary "hinges" after soldering.

Brake Handles:-Note the small notches along the edges of the brake handles indicating the exact positions of the bends. Using tweezers make the bends in the order shown in the sketch. Check the brake handle form by aligning it with the template slot in the waste part of the fret.
□ For independent brake version snip off the lower cam section of the one brake lever.

Assembly:-For Morton brakes, position the brake unit into the location slots in the chassis. Note that the small tab goes into the short slot. Apply a blob of solder paste into each of the four large holes and apply heat. The solder will run between the layers.
□ For the independent brake version locate the two halves of the brake unit into the slots, also with the small tab in the short slot.
Again using the 0.8mm dia pins or drill shanks through the buffer holes, locate the buffer beams on to the supports on the ends of the chassis. Note that the narrow coupling slot goes to the outside. Glue the beams in place ensuring accurate squareness. Note that the top edge of the buffer beam stands slightly higher than the top surface of the chassis. Stick on the solebar units, using the .010" wire to ensure alignment with the inner 'V' hanger (if applicable) and the brake unit. When secure, the temporary "hinges" can be filed off. The top edge of the solebars should be flush with the top of the chassis. Lightly solder the .010" crossrod at 4 points for Morton brakes.
□ In the case of the independent brakes the crossrod is lightly soldered at 6 points and then the unwanted centre portion of the rod is cut out.
Place the brake lever on the end of the crossrod and into the location hole in the solebar as far as its stop and lightly solder in the two places. An access hole for soldering is provided. Form the end of the handle to its correct shape. Fit the coupling hook if required inserting it as far as its stop and locating it in the coupling platform. Finally glue on the buffers, couplings and axlebox/spring units before painting.