RAGSTONE MODELS

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LBSCR Bullion van Kit

Diagram 79/230

Version no: 1.1

Date: September 2014 26 Wadham Close Rowley Regis West Midlands B65 9SH

LBSCR Bullion van

<u>History</u>

The LBSCR constructed two (possibly three) bullion vans. They were used for continental traffic between Victoria and Newhaven. This kit is of the later one built in 1899.

Originally air braked only, probably being fitted with a handbrake later. Provision is made to fit this if required.

Withdrawal occurred in May 1931 but transferred to departmental use as a stores van for the CME dept initially branded 'Return to Streatham' then based at Mitcham from January 1935 and finally withdrawn October 1938.

Numbers

Dia 79/230, SR dia 971

LBSC 274, SR 2074, later 606S

<u>Livery</u>

1907-1923 (and later) Body LBSC umber with gold lining to panelling on sides. Black underframe.

1923 – mid 1930's Body SR olive green. Black underframe.

1930's – withdrawal Body Grey, Black underframe

<u>References</u>

Drawings & photos Brighton Circular V34 no1 PP29-31 V34 no2, 51-53 PP

Introduction to kit building

Etchings

Cut the brass parts from the fret using a *sharp* craft knife (or similar) on a firm surface rather than using tin snips as these can distort the delicate etchings. The etching process leaves a small 'cusp' on the edge of the parts which should be gently filed to remove, along with any remains of the tab. This is essential to enable the parts to locate accurately as well as providing a smooth edge, which as well as looking better, provides a better surface for the paint to stick to.

Castings

These are supplied either attached to sprues or loose, if the former carefully cut from the sprue and (in both instances) clean up the remaining feed and any area you intend to solder to. If the casting forms a moving part, the relevant surfaces will need smoothing to ensure free running. Using fine files and emery cloth or other fine abrasive sheet to give a polished finish will pay dividends in reliable operation.

<u>Folds</u>

Generally all fold lines are on the inside of the bend, if not this is stated in the instructions. Folding can be performed in a number of ways, such as using smooth jawed pliers up elaborate folding bars. Clamping the part to a flat surface with a steel rule and using a second one to perform the folding action can be very effective. Long folds are ok as they are, but any shorter than about 10mm, and especially very small ones (less than 3mm), will benefit from a reinforcing fillet of solder.

<u>Solder</u>

This kit is designed for solder assembly using either 188 degree solder (brass to brass), 145 degree (brass to whitemetal) or 'lowmelt' 70 degree for whitemetal only joints. Where the term 'solder' is used in these instructions it will refer to any of these methods. It is up to you to decide the appropriate type and use the correct flux and iron for the job.

<u>Glue</u>

Some small parts can be added with glue. Use a good quality product and follow the manufacturers' instructions.

Cleaning

Keeping the model clean is a vital part of a good final finish. Flux residues and metal filings build up so always wash this off at regular intervals, especially at the end of a modelling session when you are not going to resume for a day or two. Occasionally I will wash the model during a session if it gets particularly bad. Several products such as lime scale remover or scouring cleaners can be used, but some, such as most washing up liquids do contain chemicals to give added shine which then need to be removed before painting.

Paint

Before painting the model should be thoroughly cleaned to remove any remaining flux, dirt or other construction debris. Allow to dry completely before painting. It is best to use some sort of etch primer, but providing the model is completely grease free, acrylic grey primer (car paint in spray cans) will provide a good base for the final livery

Photographs

These instructions are a guide to assembling the kit, but in order to get an accurate model, reference photographs are essential - see references section on page 2

<u>Assembly</u>

<u>Body</u>

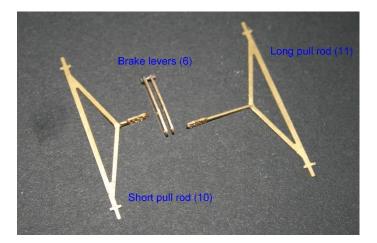
- Take Sides (21), fold top flange to match the end profile, fold bottom flange almost to 90⁰ and form tumblehome, using the end to check the shape of the curve as you go. Lower hinges (24 should be formed into a 'T' shape so that they match the outline of the upper hinges and attached to the body left of the door where indicated by the ½ etch line/slot. Fit upper hinges (25), again on the ½ etch line. Conventional push through hinges (24a & 25a) are also provided if you prefer to use these. Fit latch (29) to the right hand side of the door, again a ½ etch line gives the position. A short piece of 1.0mm wire is used to form the lock handle
- 2. Laminate the Ends/End overlays (22 &23) and fold back the bottom flaps, then fold to give a double thickness flap, this fold line is on the OUTSIDE of the bend. Fit 6ba nuts over holes
- 3. Two types of lamp iron (28/28a) are provided, the ½ etch ones look better but are more delicate. Form to shape and fit your choice to the ends where indicated by the raised locator. The fitting in the centre of the end is the socket for what is believed to be a communication system. A piece of fine electrical wire with a black coating can be used to represent the cable if desired. This should be fitted to a hole drilled through the end
- 4. Assemble 1 side and one end. Repeat with other side and end, remembering to make both 'L' assemblies the same hand. Once happy that both are square, bring together to make a box. I use a piece of plate glass for this stage to ensure the body is flat and square on all axes
- 5. Check roof for fit to body, adjust curve and trim if required, then fix. Fit rain strips using the thin plastic strips



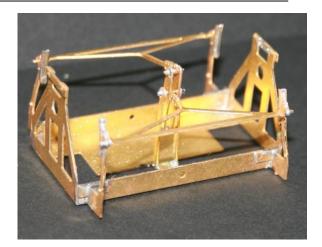
6. Trim the ends to approx 3mm and fit wire grab handles to the corners as shown in the photo and label clip (30) to the lower right hand corner of the body side if desired

<u>Underframe</u>

- 7. Form rivets on solebars (1), buffer beam detail parts are best fitted whilst in the flat. Form rivets on coupler plate Part 14 & fix over hole. Strapping (19) fits where marked, alternatively they can be left off and bolt heads embossed from the back
- 8. It is not clear if/when handbrakes were added to these vans, if fitting the handbrake, fit inner V hangar (8) to the slot in the floor and using a piece of wire align the outer V hanger (9) and fit to the solebar. Parts 7/7a provide cranks that can be fitted to this and the brake handle (17) attaches to the end of the wire with overlay (18) and pin guide (16) fixed to the solebar, just inboard of the right hand row of rivets
- 9. Fold up solebars and bufferbeams. Emboss rivets on the solebar/beam joint plate (13), fold and fit between the solebar and rear of the buffer beam (after folding the ends round). The gaps at the end should be filled when all soldering is complete. Fit footboards (2), there will automatically be a small gap between them and the solebars to clear the handbrake and V hangars (if fitted)
- 10. Fit body retaining brackets (12), 22mm apart (11mm from centre line) to the bufferbeams and crank slightly to allow the body to sit correctly on the underframe it may help to fit the body to the underframe to do this. Curve end of coupling hangar hook (15) to a half circle approx 2mm diameter and fit inboard of the right hand bracket with the curved portion protruding below the buffer beam
- 11. Fit 6ba nuts over mounting holes in the floor. The fixed W-iron assembly is fitted to these with 6ba screws, the rocking end being fixed by 1.5mm wire through the fold down tabs
- 12. Drill 1mm holes in each end of the air cylinder and attach a length of 1mm wire to both ends, this fits centrally to the floor where marked
- 13. Take W-iron units (3&4). Form rivet on axlebox retainers and fold over (fold line to the outside). Fold up main W-iron assembly and solder all corners
- 14. Fit brake hangers (5) to slots in the ends and axlebox plate (20) over the bearing holes. Wheels/bearings can be fitted now to check clearances when fitting the brakes
- 15. Take two brake levers (6), fit to 0.7mm wire through the hole furthest from the pivot, and solder a second lever to this wire with a 2mm gap between them. This is then attached to the pivots folded down from the top of the W iron assemblies with 0.7mm wire via the centre hole and short (inner) brake linkage (10). Before assembly twist the pull rod part of the brake links thru 90deg as shown in the photo



16. Fit inner brake linkage (10) with cast brake blocks to the brake hangars 5.
The long (outer) linkage (11) fits using a short piece of 0.7mm wire to the brake levers 6 on the bottom hole, but do not secure if you wish to remove the wheels for painting. Note – photo shows a similar assembly with different W irons & etched brake shoes



17. Fit the cast springs to the inner faces of the solebars. Clean up and fit the buffer castings. Drill these 1.2mm right through & 1.8mm about 5mm deep from the front. The steel heads can be fitted later with the springs and nuts (to avoid damage from flux fumes!). Make up and fit couplings and air pipes



- 18. Before painting the model should be thoroughly cleaned to remove any remaining flux, dirt or other construction debris. Allow to dry completely before painting. It is best to use some sort of etch primer, but providing the model is completely grease free, acrylic grey primer (car paint in spray cans) will provide a good base for the final livery
- 19. Once the paint is completely dry apply lettering, fit the door handles then varnish if required
- 20. The body is secured to the chassis with 4 6ba screws

Parts List

<u>Etch</u>

- Chassis 1 Underframe
- 2 Footboards
- 3 Fixed W iron
- 4 Rocking W iron
- 5 Brake hanger
- 6 Combination lever
- 7 Crank
- 8 V hangar
- 9 V hangar
- 10 Short yoke 11 Long yoke
- 12 Retainer bracket
- 13 Angle
- 14 Coupler pocket
- 15 Coupling hangar
- 16 Brake pin guide
- 17 Brake lever
- 18 Brake lever overlay
- 19 Strapping plate
- 20 Axlebox plate

Castings/Other

Whitemetal

- 1x Westinghouse brake cylinder
- 8x Brake blocks
- 4x Axleboxes

Other Parts

- 1x Preformed roof
- 6x 6ba screws/nuts
- 4x Turned buffer heads/springs/nuts
- 2x Coupling springs
- 2x Split pins

Parts required

2x 3' 7" Mansell coach wheels (1 pack Slater's 7127)

<u>Body</u>

- 21 Side
- 22 End
- 23 End overlay
- 24 long hinge
- 25 Short hinge
- 26 27
- 27 28 Lamp brackets
- 29 Latch
- 30 Label clip

Lost wax brass

- 1pr Couplings
- 2x Air pipe
- 4x Buffer bodies
- 6x Springs

<u>Wire</u>

- 4x Door handles
- 1x 0.9mm approx 40mm
- 1x 1.5mm approx 30mm
- 2x Rainstrip

Transfers for your chosen livery