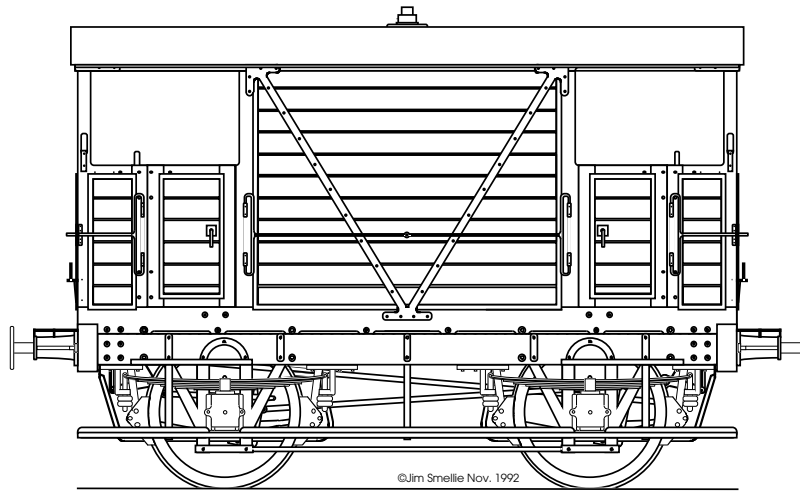


Caley Coaches

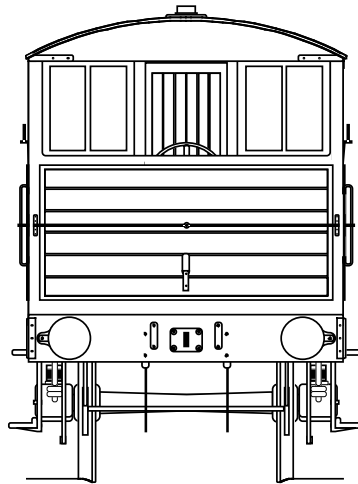
'True Line' kits in etched brass

0141-772 5537

Jim Smellie,
15 Tay Crescent,
Bishopbriggs,
Glasgow, G64 1EU.



10'



**Building Instructions for kit CC20
Caledonian Railway 15 Ton Brake
Van**

Section 1 Prototype Notes

A total of 37 of these vans were built between about 1903 and 1908 as follows :

Lot	Quantity
G202	12
G217	2
G225	5
G251	12
G258	6

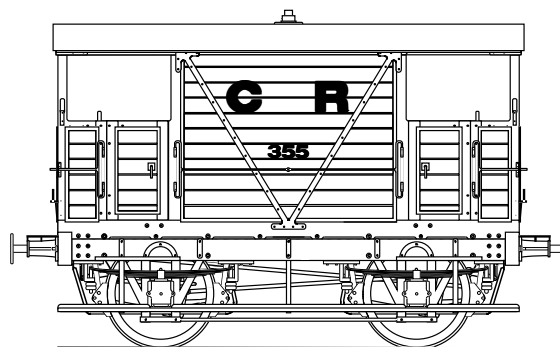
Wheels were 3'9" in diameter and had 9 open spokes — or at least they are on the G.A. drawing : in the only clear photograph I know of (described later) the wheels appear to be solid, perhaps spoked wheels sheeted over. Screw-link couplings were fitted from new.

They would have been employed mainly on shorter distance traffic as 40 20 ton, 6-wheel vans of the same general design were built to lot G210 not long after the first batch of the 15 ton vans were built : it is these larger vehicles which would have undertaken the main line duties.

The late Duncan Burton, whose faultless memory was of great assistance to me over the years, remembered the 15 ton vans about Carmyle in the 1930s and hazarded a guess that a few might have survived the war but had no definite information on this.

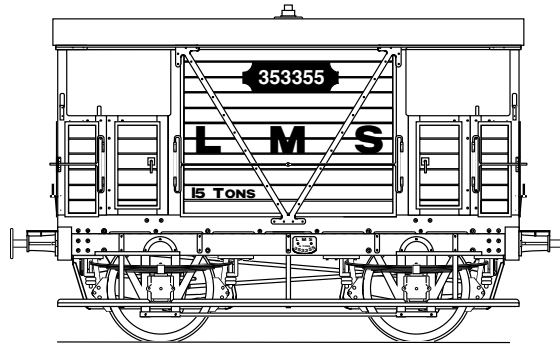
Running numbers for the vans are also a problem — no Caledonian Railway goods stock number list appears to have survived. However, the L.M.S. renumbered Caledonian brake vans by adding 353000 to their original numbers so it is possible to deduce a C.R. from photographs taken in L.M.S. days. Unfortunately the only photograph I have seen with a visible number is of 353355 (i.e. C.R. 355) which is pictured on page 20 of Bob Essery's book *An Illustrated History of L.M.S. Wagons* volume 1 (O.P.C., Oxford, 1981). It is seen posed with a rake of ballast hoppers and a "Shark" plough brake van — the latter would date the picture as post 1932. Edwards Bros. drawing CR3/38 depicts a very similar van numbered as 576 (implying L.M.S. 353576) but these drawings are often suspect. A Pochin drawing in the *Model Railway News* of February 1938 again depicts a similar van although the design of the wooden door of the cabin differs — this is lettered as number 578 (implying L.M.S. 353578) while two L.M.S. numbers 353037 and 353189 are given in the accompanying text.

In Caley days the bodywork would have been painted red oxide with vermilion ends, black underframe and white roof. Lettering would have been rendered in white, probably as shown below :

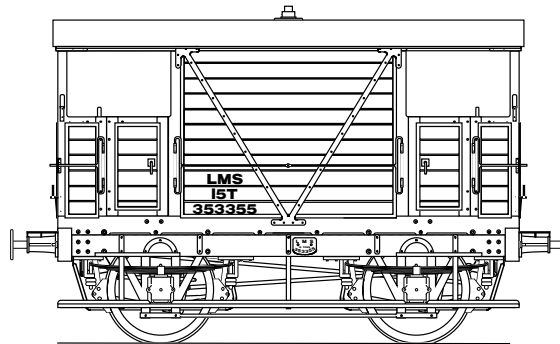


After the grouping in 1923 the L.M.S. would have painted the vans grey — the shade varied according to where and when a wagon was painted but number 353355 appears to be a fairly dark colour. Below the solebars everything was painted black but note that the solebars themselves were painted in the body colour. The roof would have been white and the inside of the van Brunswick green (certainly according to the paint schedule issued in 1929 — this document probably quantified

existing practise). Lettering would have been as shown in the drawing below with the 15 TONS branding later abbreviated to 15T (as per the photograph mentioned previously).



After 1936 the body colour became bauxite and the insignia smaller, probable set out in 3 lines as shown in the drawing below, although it would be guesswork to say that any of these vans were actually so repainted.



If any one can supply any further livery or numbering information then please get in touch — any information received will be collated and distributed to all kit purchasers.

Section 2 Parts list

Please check the contents of your kit and inform me of any shortages. If for any reason you wish to purchase parts separately, I can give you a quote for any part unless it is on an etched fret. Normally complete frets only are available.

N.B. Numbers in brackets following a part name are the quantity supplied when other than 1; numbers preceding a part name are identification numbers which will be found alongside the part on the etch.

- 1 Etch containing :-
 - 1 Floorpan
 - 2 Rocking “W” Iron
 - 3 Fixed “W” iron
 - 4 Brake hanger and shoe (x8)
 - 5 Brake “A” frame (x2)
 - 6 Brake crank
 - 7 Brake crank
 - 8 Brake rod
 - 9 Brake rod
 - 10 Brake rigging guard (x4)
 - 11 Body side (x2)

- 12 Body end (x2)
- 13 Verandah (x2)
- 14 Roof
- 15 Verandah seat (x4)
- 16 Body framing (x2)
- 17 Door framing (x4)
- 18 Verandah side framing (x4)
- 19 End framing (x2)
- 20 Corner strap (x4)
- 21 Lamp iron (x12 — only 6 required!)
- 22 Solebar overlay (x2)
- 23 Running board (x2)
- 24 Hand wheel (x2 — 2 layer)

2 Cast fittings :-

- CC20/1 Axlebox (x4),
- CC20/2 5' spring (x4),
- CC20/3 2 bolt “J”-hanger (x4),
- CC20/4 3 bolt “J”-hanger (x4),
- CC20/5 Buffer stock (x4),
- CC20/6 Brake stanchion (x2),
- CC20/7 Stove,
- CC20/8 Chimney top.

3 Miscellaneous parts :-

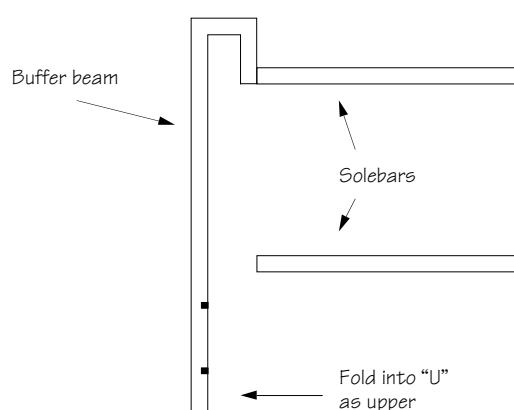
- Buffers heads (x4),
- Buffers springs (x4),
- 0.45mm wire (2),
- 1mm square brass section,
- Glazing material.

4 Printed matter :-

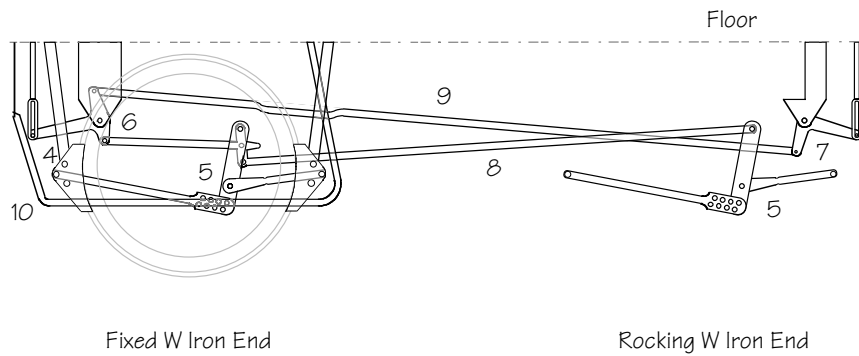
- General building notes,
- CC20 building instructions (this document !)

Section 3 Underframe

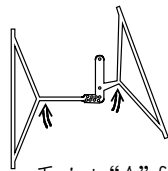
- 3.1 Please study the General Building Notes if you are not familiar with etched brass kit construction in general and *Caley Coaches* products in particular.
- 3.2 Press out the half-etched rivets on the floor-pan (part #1) with a slightly blunt map-tack.
- 3.3 Fold down the solebars to 90°, fold the steps outwards from the solebars until they are parallel with the floor pan. Likewise turn the “J” hanger location plates inwards from the solebars.
- 3.4 Fold down the buffer beams. Fold the ends into “U”s as indicated in the diagram.



- 3.5 Tin the front surface of the buffer beam prior to folding the overlays back up at 180° and sweating in place. File off any tag remnants once the overlay is in place.
- 3.6 Fold the rocking “W” iron pivot, the brake rigging pivots and the brake operating rods down from the floor. Reinforce the folds with a fillet of solder.
- 3.7 Press out the half-etched rivets from the solebar overlays (part #22) and tin on the rear face.
- 3.8 Tin the front face of the solebars on part #1 taking care to leave all holes clear. Place an overlay in place locating the outer running board supports through the holes in the steps and sweat in place. Repeat with the other overlay. **Take care not to block the slots in the solebars.**
- 3.9 Fold over the bottom section of the running board supports to take the running board.
- 3.10 Fold up the lip on the running boards (part #23) then solder the running boards to their supports, locating the supports in the half-etched recesses on the rear of the running boards.
- 3.11 Solder the “J” hangers in place now on their location plate before everything gets too cluttered with brake gear. The 2-bolt ones go to the outside nearest the buffer beams.
- 3.12 Press out the half-etched rivets on the fixed “W” iron (part #3) and fold to shape. The bottom section fold outwards to 180° giving a double thickness section below the axleboxes. Fold the locating tabs at 90° (away from the “W”s) to the central section. Fit to the floor pan using the tabs to aid location and fix in place.
- 3.13 Likewise form the rocking “W” iron (part #2) and locate it on its pivot. Bend the tabs on the pivot over slightly to hold the part in place but still allow it to rock.
- 3.14 Since the brake rigging effectively locks the wheels in place it is probably best to fit the bearings and wheels of your choice now. You will however need to be especially careful to clean and dry the wheel assemblies after each construction session or they will rust!
- 3.15 Solder the axleboxes in place over the wheel bearings.
- 3.16 Solder the springs in place above the axleboxes taking care not to impede the movement of the rocking “W” iron.
- 3.17 Tin the mating surface of the brake hangers and shoes (part #4), fold over and sweat together. File off any tag remnants once the shoes are in place.
- 3.18 Locate the brake assemblies in place on the floor using whichever slots line up with your wheels and solder in place.
- 3.19 The overall layout of the brake rigging is shown in the drawing below :

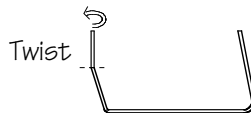


- 3.20 Start by fixing the brake cranks (parts #6 & #7) to the operating rods and pivots which fold down from the floor and then fit the rod (part #9) between them.
- 3.21 Now fold up the “A” frames (part #5) as shown and solder in place to the back of the brakes.



Twist “A” frames to 90° with respect to the center section

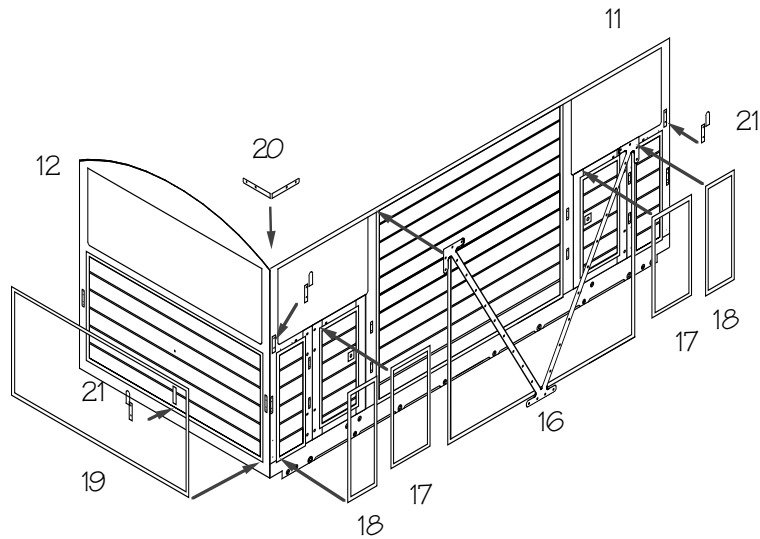
- 3.22 Fix the other pull rod (part #8) to the frames and crank at the fixed “W” iron end (part #6). Ensure that the rocking “W” iron is still free to move.
- 3.23 Lastly twist the outer legs of the brake rigging guards (part #10) to 90° at their elbows and solder into the slots in the floor.



- 3.24 The tie-rod between the two “W” irons should be simulated by a length of wire soldered to the bottom of the inside face of the fixed “W” iron only.
- 3.25 Drill out the buffer stock castings to suit the heads, fit the bushes to the rear of the holes and then solder the assemblies in place on the buffer beams.

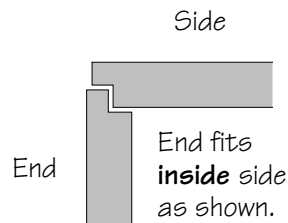
Section 4 Body

4.1 The general arrangement of the body parts is shown in the isometric drawing below :



4.2 Start by pressing out the rivets on the body sides (part #11) and then fold over the lips. Locate the tabs of the lips in the slots of the solebars. **Don't solder anything in place yet.**

4.3 Solder the ends (part # 12) to the sides, fitting the parts as shown below :



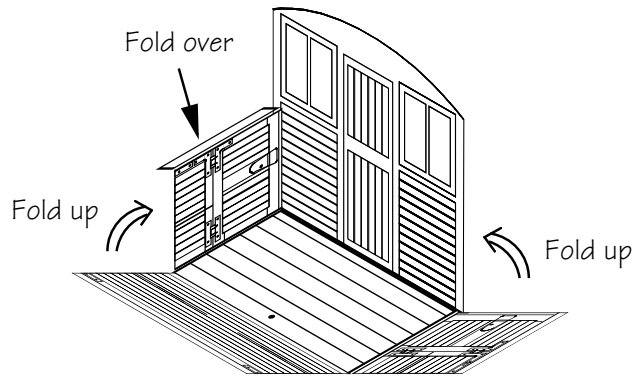
4.4 The body assembly can now be fixed to the underframe.

4.5 Press out the rivets on the rear of the body framing (part #16), tin its rear face and sweat in place on the body sides.

4.6 Similarly, tin the rear of the other framing pieces (parts #17, 18 and 19) and sweat in place as shown in the isometric drawing.

4.7 Press out the rivets on the corner straps (part #20), fold to shape and fix in place.

4.8 Fit the verandah seats (part #15) in place on the verandah ends then fold the verandah (part #13) to shape as shown below :



Note that there is a lip which folds over to 90° on both of the sides and the end.

- 4.9 Position the verandah assemblies in the body and solder in place.
- 4.10 Cut 4 lengths of 1mm square brass and solder in place inside the body/end joints — there should be a suitable hole in the verandah lips. These both strengthen the joins and give the prototypical “square timber” look.
- 4.11 Fold six of the lamp irons to shape and sweat in place on the body as shown in the isometric drawing. Six spares are provided to allow for practise and/or accidents!
- 4.12 Roll the roof to shape and solder the chimney in place.
- 4.13 Tin and sweat together the hand-wheels (part #24) to give two double layer assemblies. Solder a short length of wire into the hole in each to represent the handle. Fix the wheels to the cast stanchions and fix the assemblies in place, one in each verandah.
- 4.14 A cast stove is provided for anyone wishing to detail the van interior but otherwise you are on your own here — it will be invisible when the van is in service!
- 4.15 Now comes the tricky bit — fashion the handrails from the wire provided and solder in place.
- 4.16 Paint and letter the van according to your chosen period, then glaze the van and fit the roof in place.
- 4.17 Fit the buffer springs and heads.
- 4.18 Add couplings to your chosen standard and your van is ready for service.

Other items in the *Caley Coaches* range

Caley Coaches now produces a wide range of kits and accessories exclusively for modellers of the Caledonian Railway and its successors. Please send an S.A.E. for a copy of my latest list.