

# Welcome Wagons WW 09

## Bogie Bolster C Unfitted



### History

The 'Bogie Bolster C' was of a new design built for British Railways, five diagrams cover the type and all examples are 45ft over headstocks with a 30ton capacity.. This kit covers diagrams No. 1/471 & 1/473 which were unfitted and with short bolsters. For more info see British Railway Wagons the first half million.

#### Dia No. 1/471

##### Running Numbers

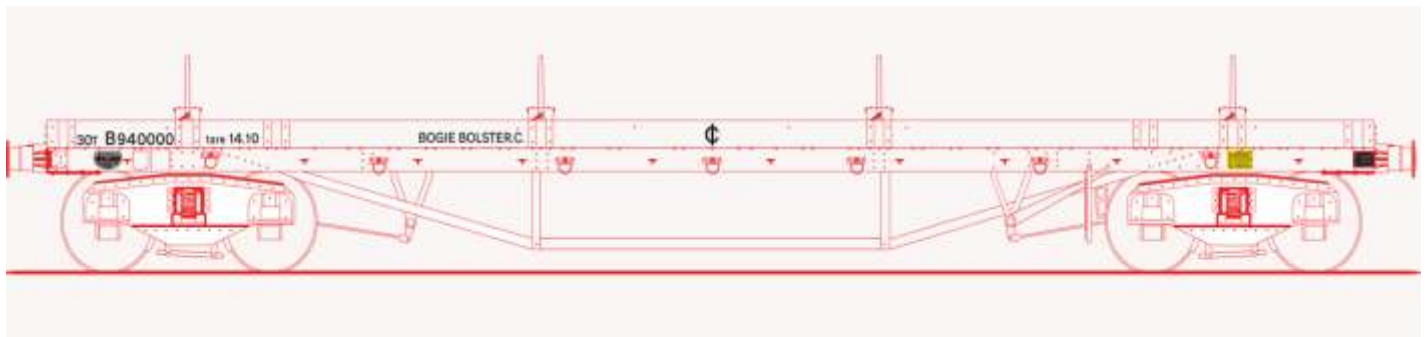
B940000 - 940049	Lot 2085	Swindon	1948
DB997600 – 997633	Lot 2271	Swindon	1951 (S&T Dept)
B940050 - 940999	Lot 2308	M. Camm.	1951
DB997634 – 997647	Lot 2309	M. Camm.	1951 (S&T Dept)
B943000 – 943099	Lot 2326	Swindon	1952
B943100 – 943349	Lot 2406	M. Camm.	1953

#### Dia No. 1/473

##### Running Numbers

B943350 – 943509	Lot 2496	Swindon	1953
B943510 – 943609	Lot 2539	M. Camm.	1954
DB997649 – 997669	Lot 2540	M.Camm.	1954 (Dept. use)
B943610 – 943859	Lot 2542	Swindon	1954
B943860 – 944059	Lot 2583	M. Camm.	1954 (part lot)
B944310 – 944469	Lot 2616	Birmingham	1956 (part lot)

If you require to build to diagram 474 then send back the bolsters and side pockets for replacement to M&M Models, then use the etched parts 13 with the replacement castings.



Transfer layout, drawing not to scale.

## Parts List

### Etch

Coupling springs x 2  
 6BA bolts or M3 x 2  
 6BA nuts or M3 x 2

### Instructions

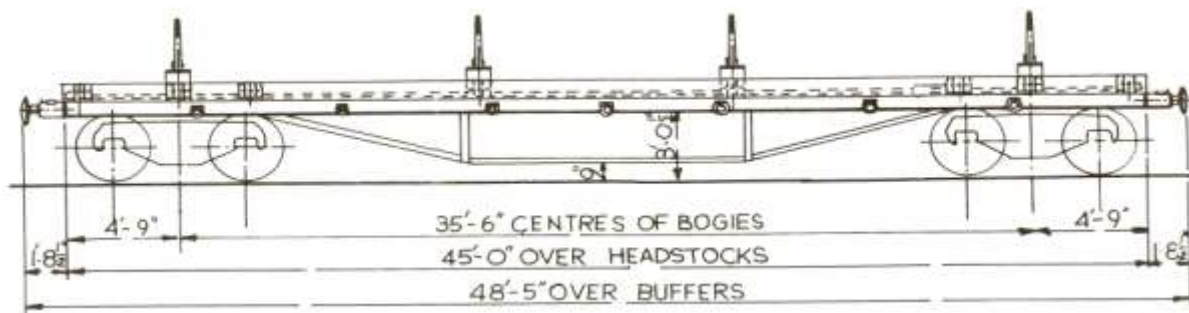
Coupling links x 4  
 .7mm wire x 8"  
 Spilt pins x 2

### W/M castings

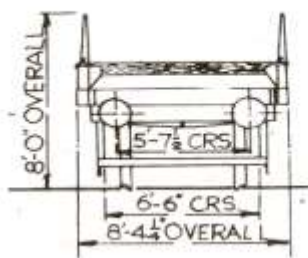
DW-8, Buffer x 4  
 DW-98, Bogie side frame x 4  
 DW-99, Brake X shaft x 2  
 DW-97, Side pockets empty x 8  
 DW-96, Side pocket with stanchion x 8.

DW-16, Detail set x 2  
 DW-79, Bogie cross member x 2  
 DW-95, Bolster x 4  
 DW-84, Side shackles x 14

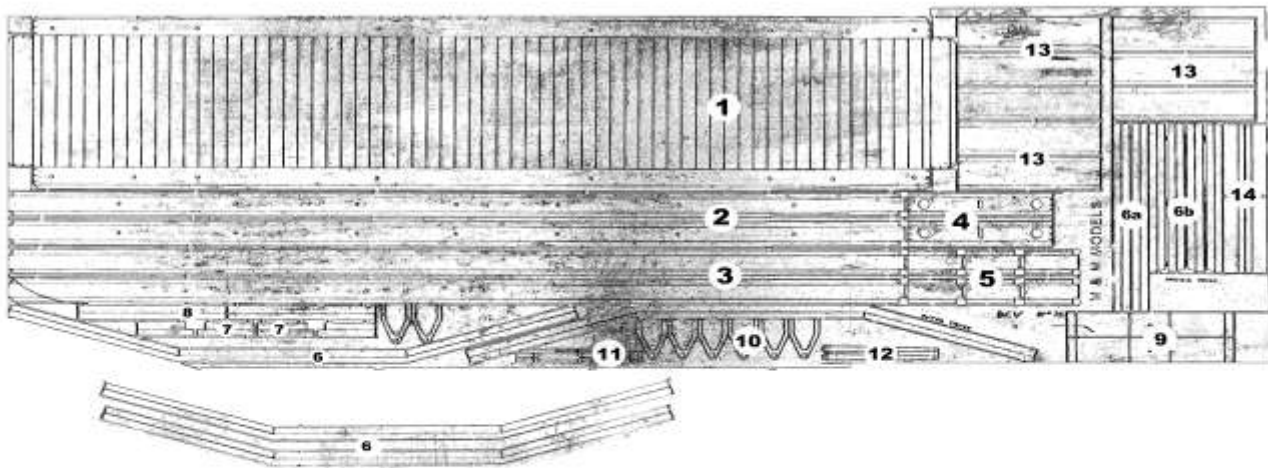
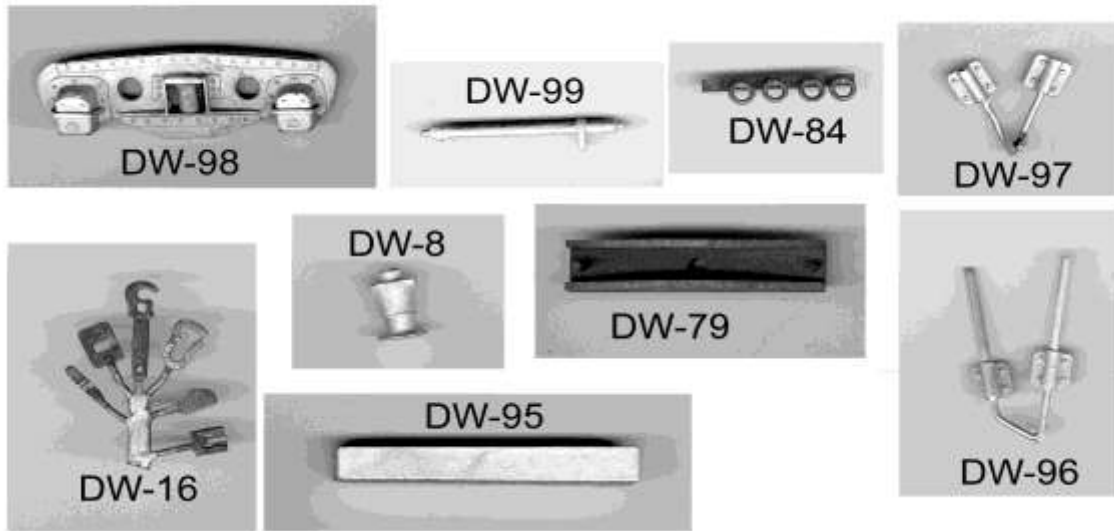
ITEMS REQUIRED TO COMPLEAT, 2 x sets of 3'1" 3hole disc wheels Slaters 7122 sets inc. bearings, Slaters 7121 or 3'1" spoke wheels with bearings or the New Welcome turned steel insulated Wheels c/w ball bearings. Transfers can be purchased from M&M website [www.modelrailwaywagons.co.uk](http://www.modelrailwaywagons.co.uk)



Drawing not to scale



Plan not to scale.



**Etch List,**

- |  |                          |                                      |
|--|--------------------------|--------------------------------------|
| 1 Wagon Floor  | 6a inner truss center    | 9 Bogie mounting plates              |
| 2 Outer solebars   | 6b inner truss ends      | 10 Brake V hangers (only 4 required) |
| 3 Inner Solebars   | 7 Truss posts (handed)   | 11 Brake pin down bars               |
| 4 Buffer Beams   | 8 Truss tie angle plates | 12 Brake handles                     |
| 5 Chassis cross beams  |                          | 13 NOT USED                          |
| 6 Outer Truss (can be used for inner truuses instead of 6a and 6b) |                          | 14 Chassis end braces (4 of handed)  |

Note: - Some parts of the kit will require some small amount of filling to achieve a snug fit of parts, i.e. the ends of solebars and cross members.

Tip: - To make the long folds easier, scribe the half etched fold lines before bending.

**Instructions.**

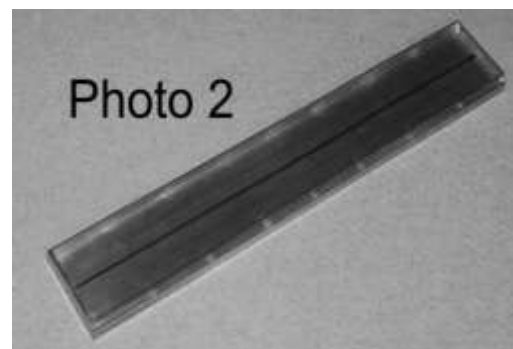
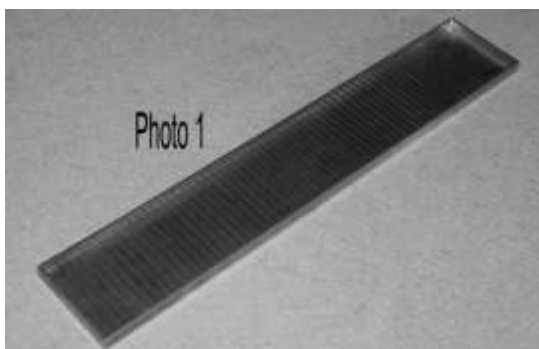
1. Take the floor (1), Push out rivet detail at ends then fold up top lip through 90° all round. Then fold up sides through 90° all round, this should form a tray then solder up corner seems. *Photo 1*
2. Take the outer solebars (2), inner solebars (3), inner cross members (5) and buffer beams (4), on parts (5 and 2) push out rivet detail at ends, fold up to form a U shape.
3. Solder outer solebars to buffer beams to form a rectangle, now take this and solder to underside of wagon floor. *Photo 2*
4. Fold up two of the trusses (6) and the four truss posts (7). Solder truss posts to trusses (6) see *Photo 3*. Now mark a line 16mm from truss end of post. *Photo 3*.
5. Now mark a line across the underside of the wagon floor 58.5mm from outside of buffer beams and fit the truss assemble to behind the solebar so that the bottom of the truss is 16mm from the bottom of the solebar. *Photo 4*. Now repeat with the other side.
6. Now fit the cross members (5) up against the solebar and truss assay, three on each side. *Photo 5*.
7. Now fit the two inner solebars (3) between the buffer beams and up against the cross members.
8. Next take the end braces (14) fold to L shape and fit up against buffer beam and inner solebars. *Photo 6*. (note;- these may have to have some metal removed from the top edge to clear wheel sets, best done for position when the bogies are fitted.
9. Take the two truss cross braces (8), trim to length, fold to L shape and fit between Trusses. *Photo 7*
10. Next take the inner trusses (6), fold to shape and fit these up against the outside face of the inner solebars. Or if you prefer you can build these from the individual parts (6a) and (6b). To finish make some short lengths of L section from unused truss parts to go between the inner trusses and inner solebars. *Photo 7*
11. Take the bogie mount plate (9), trim 4mm of the length on each side. Open out hole to clear 6BA bolt (2,7mm) or M3, now solder a 6BA or M3 nut over hole on the side with the half etched lines. Bend to shape and fit over inner solebars and up against outer sole bars, spaced at 35'6" centres (248.5mm). Or (33.5mm) in from outside of buffer beams. *Photo 8*
12. Take 4 V hangers (10) fit two at r/h end behind solebar but outside of the outer truss with the end leg 85mm from buffer beam and the other two to the outside face of the far side inner solebar. *Photo 9*
13. Now take the brake X shaft (DW99), this then fits between the V hangers, and will need to be trimmed to length. Add wire from the X shaft to the bogie mount plate. *Photo 10*. Repeat at other end.
14. Take brake pin down bars (11), fold to shape and fit to solebars 68mm from buffer beam. Next take the brake handles (12) and bend to shape, these fit from the V hanger to the brake pin down bar. *Photo 11*.
15. Add buffer beam detail, buffers, coupling hook, back plate and lamp brackets.
16. Now fit the solebar and body side detail, wagon plate, load clip and shackles. *Photo 12*.

17. Now fit the empty side pockets (DW97) and Full side pockets (DW96), into the holes on the body side positions as per photo. Then add the cast bolster, these go between the full side pockets and are best glued to wagon floor. *Photo 13.*
18. Bogies, take the side frames (DW98) drill out to take your chosen axle bushes, you can fit a M2.5 washer (not supplied) under the flange of the top hat bush, this will take up most of the axle end float. Take bogie bolsters (DW-79) and remove pip's from inside of ends. 79) .If you require compensation, cone out the centre hole just enough so that the screw head (see20 ) will not pass thru. A small countersink bit is the ideal tool for the job. **NB:- Only one end of the wagon requires this process**
19. Assemble bogies with wheel sets, make sure all is square, fit bolster between side frames and solder up. *Photo 14.*
20. The bogies are held on to the chassis with 2 x 6BA (or M3) bolts. You may find that you may have to trim some metal on the members (14) to clear the wheel sets and from the insides of the bogie cross member to clear the head of the M3 bolt. *Photo 14.*
21. This completes the model, all to do now is clean the model, paint and apply transfers, see drawing and photos for position.

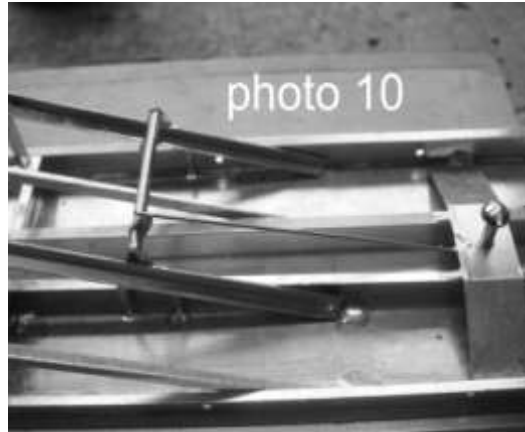
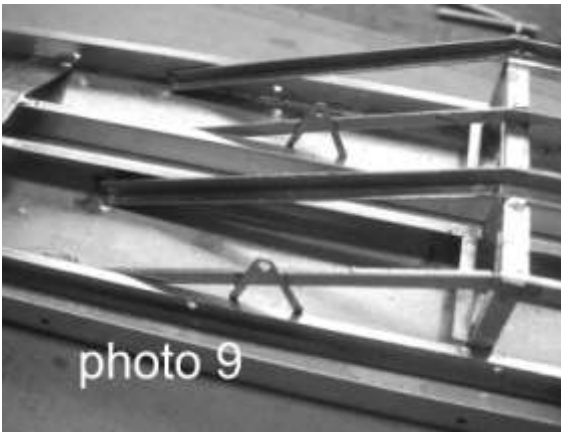
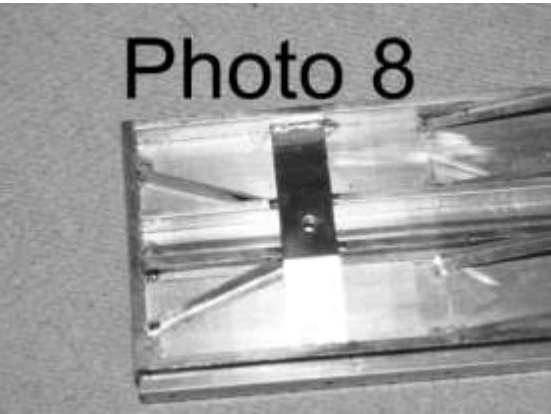
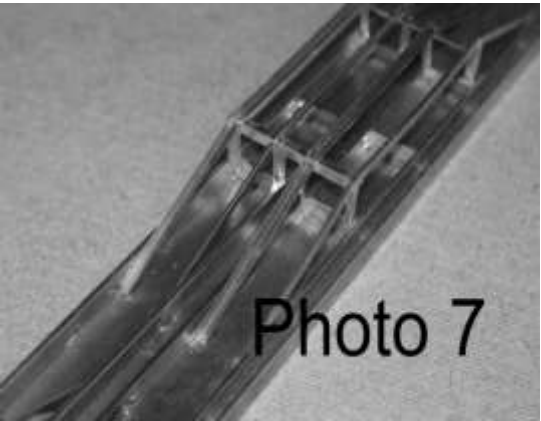
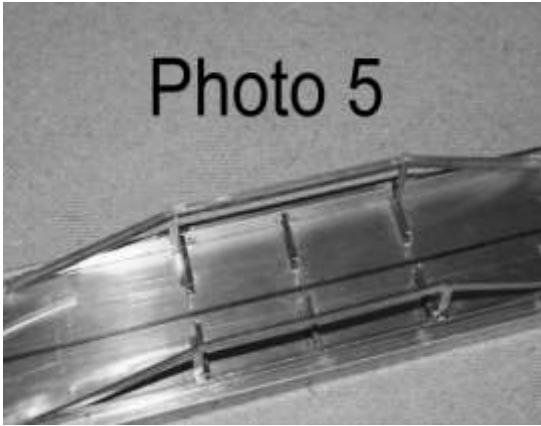
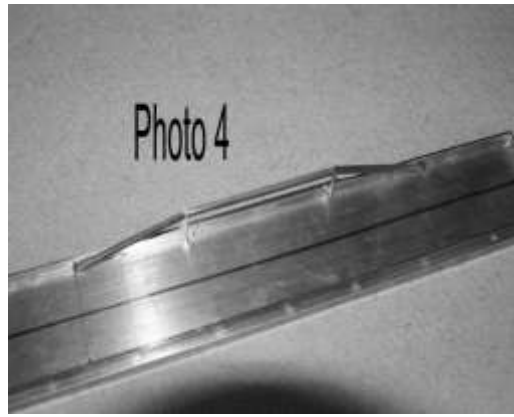
#### Reference Books

British Railways Wagons the First half million  
By Don Rowan ISBN 1 07529 03780  
British railways Goods wagons in Colour  
by Robert Hendry ISBN 1 85780 03780  
British Railway wagons, opens and hoppers  
By G. Gamble ISBN 1 1900298 06 6  
British Railway Wagons No.1, Open & Hoppers  
ISBN 1900298 015

Web Reference :-Paul Bartlett Wagon Photos  
(<http://paulbartlett.zenfolio.com/brbco/hb18e230#hb18e230>)







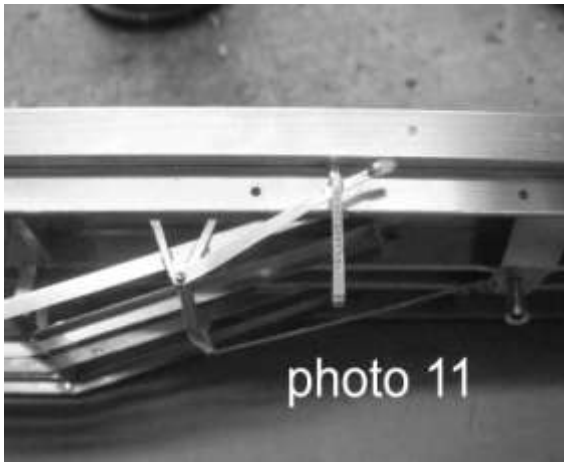


photo 11

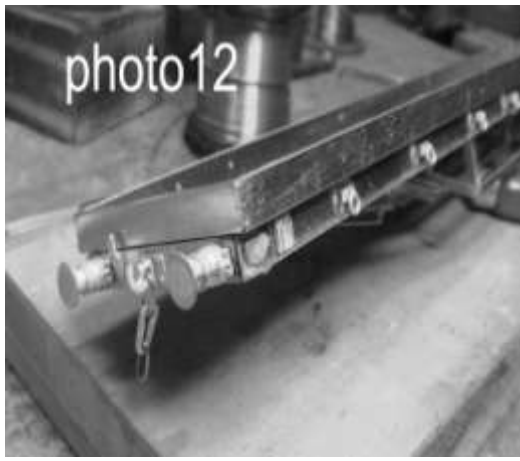


photo 12

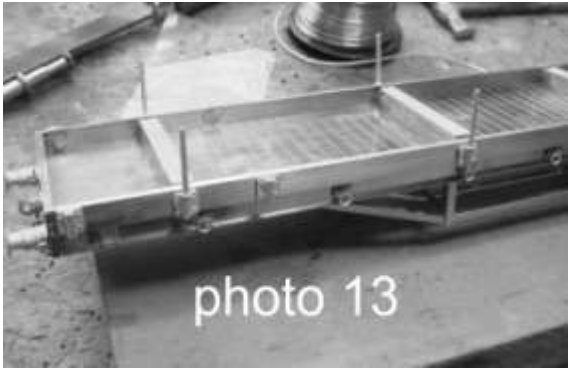


photo 13

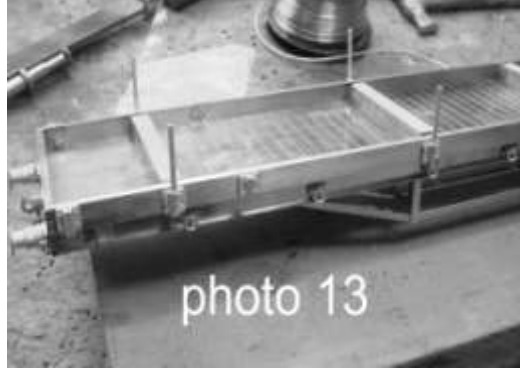


photo 13



photo 14