

E.M.K.D.E.

LATE BR COKE HOPPER 20T, Dia 1/152
MKD 3 (LBR)



HISTORY

BR built some 300 wagons to this diagram in 1958 at Shildon works (B448650 – B449199). These wagons had no raves (top end and side rails) but had full height side and end sheeting. Some were welded and some riveted, some were vacuum fitted and some unfitted. Features include Roller bearing axleboxes, axlebox tie bars and two shoe brakes on each side.

BUILD AND RUNNING NUMBERS

B448950 – B449199 1/152 LOT3122 Unfitted Shildon 1958
Total 300

ASSEMBLY INSTRUCTIONS

1. Take sides **(1)** bend to shape with top lip bent inwards (as this strengthens the sides).
2. Take ends **(2)** do not push out any rivet detail as late BR coke hoppers had welded bodies, also remove the two ears from sides and the top fold over lip, remove these along the half etched fold lines, then bend to shape. **See photo 1.**
3. Solder the ends **(2A)** to body sides **(1)** (note the sides locate inside the ends). **See photo 2.**
4. Now fit end steps **(2B)** which go into the half-etched areas on the ends. Check all is square and put aside for now. **See photo 2.**
5. **Chassis.** Take solebars **(11)** and buffer beams **(12)** and push out rivets.
6. Take inner **(13)** and outer **(11)** solebars and buffer beams **(12)** and the 8 cross members **(14)** and bend into shape. (See useful tips)
7. Take the end platforms **(12A)** do not push out the rivet detail and bend the small end down, then bend the rivet strip up to and just beyond 90°. **See photo 3.**

8. Take a solebar (11) and solder to a buffer beam (12) (note there are more rivets along the bottom edge of the solebars. Repeat with the other two and solder these together). **See drawing No.3**
9. Check that it is correct and with the chassis the right way up! Solder the end platforms (12A) in place, making sure all is square. ***This is the last chance to ensure this.***
10. Now solder the inner solebars (13) in place, they align with the marks on the platform ends. Then solder the inner cross members (14) between inner and outer solebars on the marks, noting that they are handed. **See drawing No. 3 and photo 4.**
11. Take coupling hook pocket overlays (15) and push out rivets. Then solder to buffer beams. **See drawing No. 3 and photo 4.**
12. Now fit chassis to body. The body ends should align with the chassis ends. Check that all is square (the body overhangs the sides a bit) and then solder the bottom edge of body to inner solebar. **See photo 5.**
13. Take the T angle back plate (or end stanchions) (6) *do not push out the rivet detail* solder to body ends (2) use the half-etched lines as a guide (note one has a hole in it for a handrail) and align with hole in body end (2).
14. Take the pointed strips (7) that will make the end stanchion T angle, solder into the half-etched slots in the backing plates(6), the point goes to the top. **See photo 6.**
15. Add handrails to end of hopper made from 0.7mm wire.
16. Now fit body side strips into half-etched recesses, you will have to cut strips to length 2 x 35mm and 1 x 55mm with bend. **See photo 7.**
17. Now take the body side triangle gusset plate infills (10) *do not push out the rivet detail* and bend to shape. Note that these are handed and fit as per drawing No. 4. **See photo 8.**
18. Take the three hopper floor chutes (8&9) and bend to 90° and solder to body (note that the centre one (8) should leave a gap of 53.5mm each end as seen from the bottom). The two small ones (9) go in the centre of these gaps. **See drawing No. 5.**
19. Assemble the four cast hopper bottoms **see drawing No. 5.** Threading the etched door stops (28) and superglue into desired position. The whole assembly now fits from the underneath and when satisfied all is square araldite or solder into place. **See photos 9 and 10.**
20. Now fit the buffers (or use sprung ones from Slater's Ref No. 71565).
21. Add the load clips (24) and makers plates (23) referring to photos for positions.
22. Take the front steps (27) fold up and solder to underside of solebar at L/H end.
23. Next add the V hangers (16) align with rivet detail on solebars. **See drawing Nos. 2 & 8.**
24. Take axleboxes drill out to take top-hat bearings. You will have to grind away some of the inner solebar to clear the wheel sets before fitting. **See drawing No. 3.**
25. **Brake gear.** Take small V hangers (17) and fold up. **See drawing No 6.** Take brake handles (18 & 19) pin down bars (20) and add to wagon sides. **See drawing No's 2 7 & 9.** Use a small length of 1mm wire to put through small V hangers (17) and brake handle (18) **see photo 2.**
26. Take the brake assembly (25) and push out the rivet detail and fold in half to form the brake shoe rod set and solder, clean up. Now bend the mounting tabs through 90°, one with the fold line on inside and one set with the fold line on outside. **See drawing No 8.**
27. Now pass a length of 0.7mm wire through V hangers (16) and through brake assembly (25) and solder into place. **See drawing no's 2 & 9** for correct positioning. When satisfied solder the mounting tabs to the solebars.
28. Now fit the brake safety bars (26) fold up and solder to the brake assembly mounting plates and inner solebars. **See drawing No's 2 & 9 and photo 13.**
29. Make the towing hooks from 0.7mm wire. **See drawing No 2** and add to sole bars, four per side.
30. Now add the couplings to the buffer beam.
31. Now fit the cross ties (21) between axle boxes.
32. After cleaning (**see useful tips**) paint using a good primer first, followed with your choice of colour. **See photo 14.**

To aid identification all part No's are in **Bold>**

We hope you enjoyed building this Hopper wagon and trust that it will give you good service for many years.

Parts List BR Late Coke Hopper

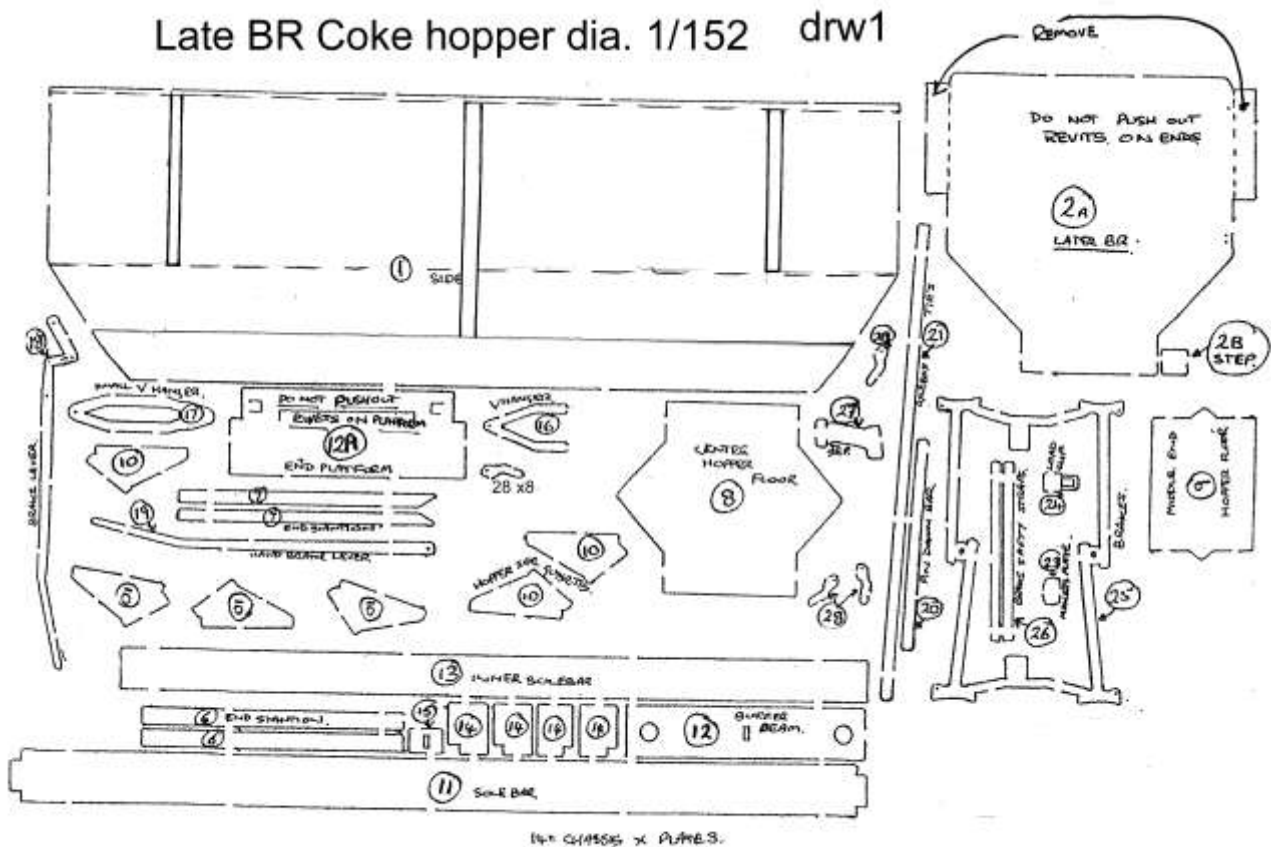
- 4x Axlebox - roller type DW42
- 4x Hopper bottom DW51
- 4x Oleo buffer DW25
- 2x Coupling detail sets DW3
- 2x 0.7mm wire 150mm

To complete the model

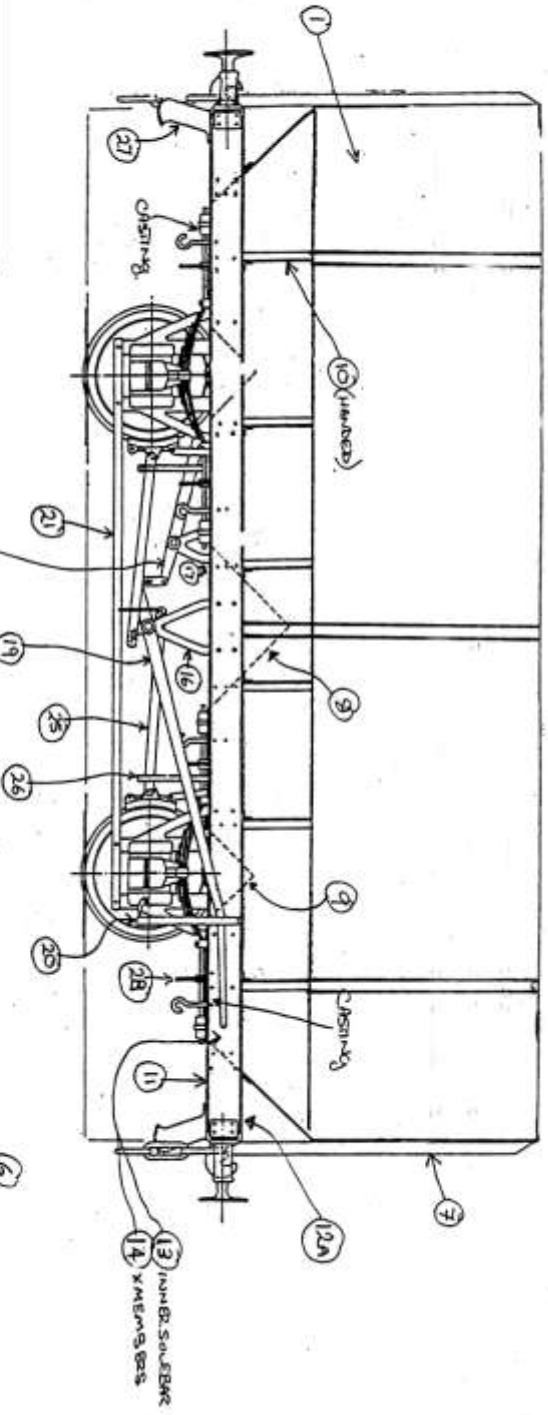
3'1" wheel sets

Slater's standard wagon wheel 3 hole disc c/w bearings ref no 7122) or The New Welcome Turned Steel Insulated Wheels.
If sprung buffers are required (M&M can supply RCH & Oleo type Welcome sprung buffers or Slater's, Ref No. 71565
Or Oleo Type Slater's Ref No 71572)

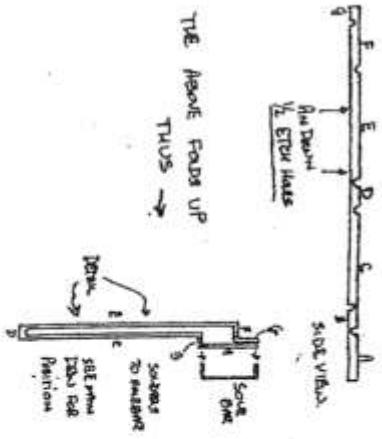
The above are available for purchase on the M&M website www.modelrailwaywagons.co.uk



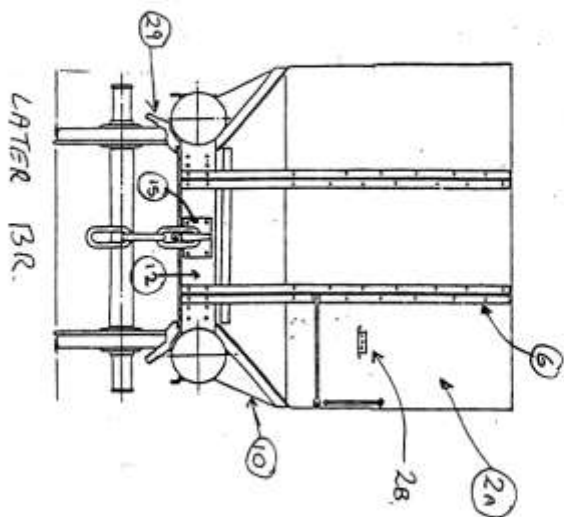
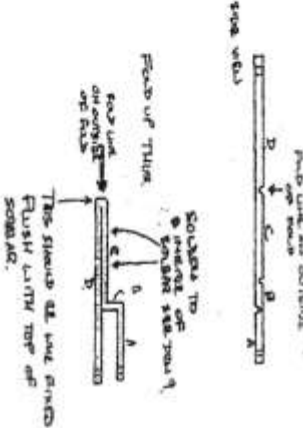
drawing 2

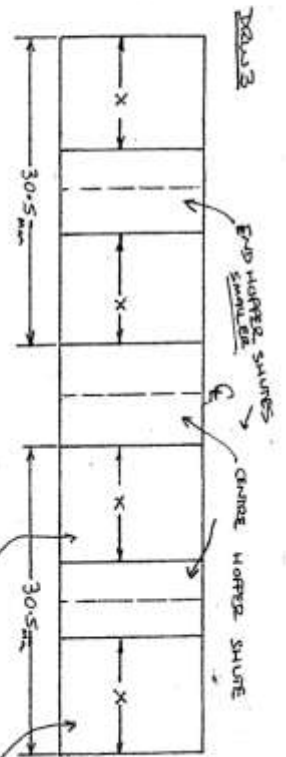


Drw 7 brake pin down bar



Drw 6 Small V hanger

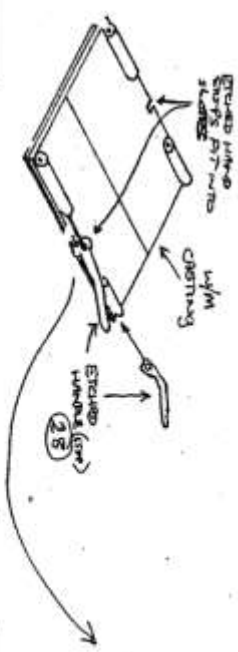




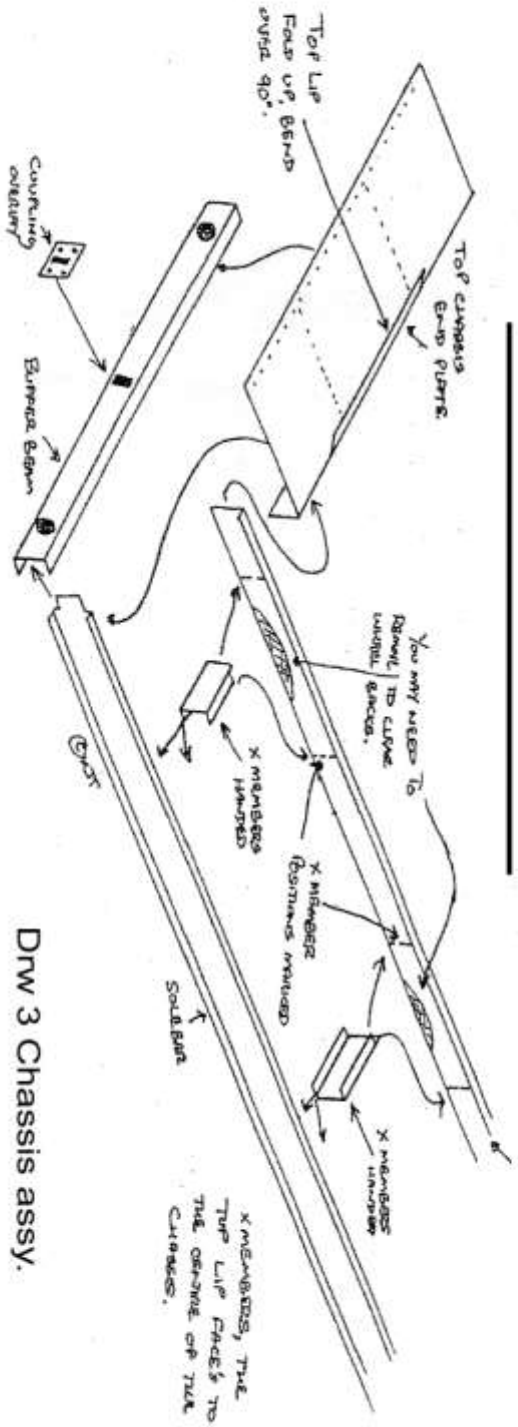
X = 10.6mm

HOPPER BOTTOM
LOOKING FROM
UNDERNEATH.

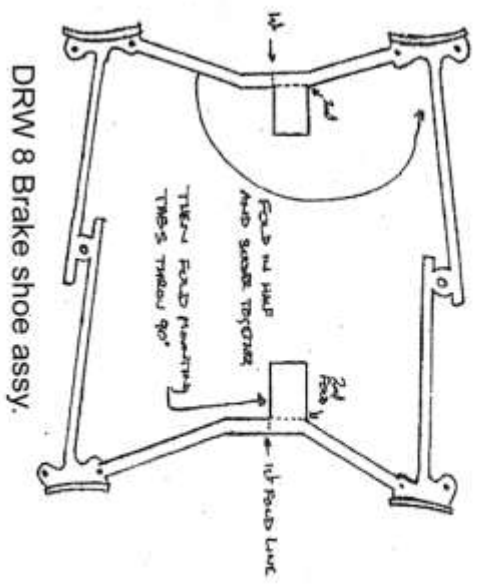
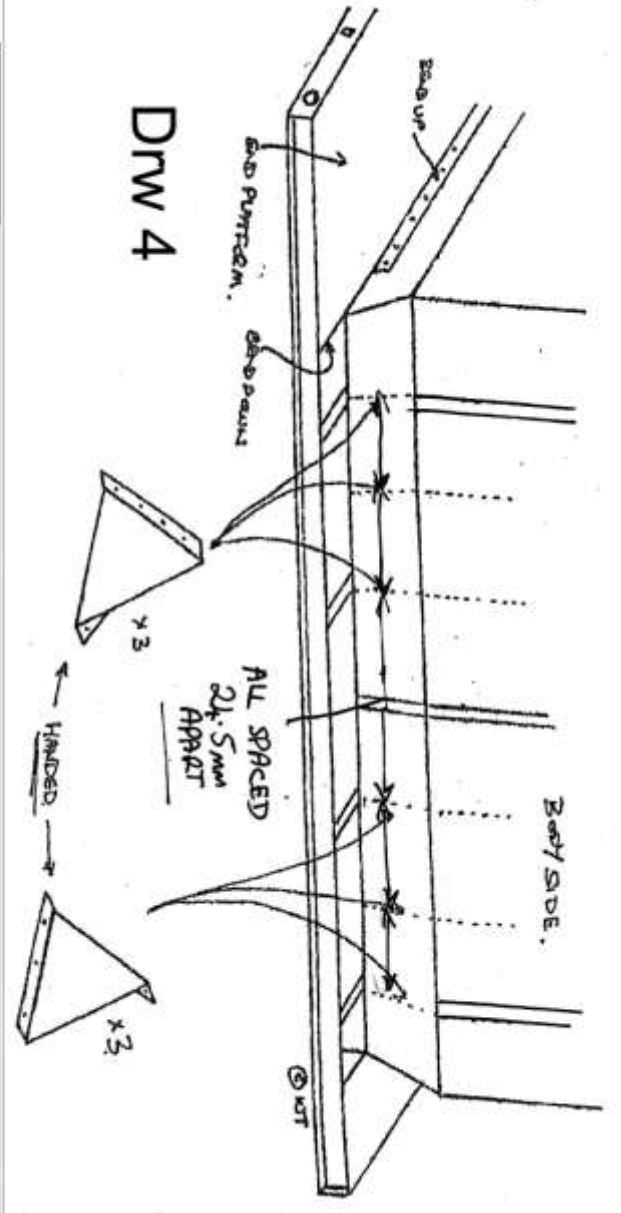
Dwg 5 Hopper bottom



HOPPER BOTTOM
CASTINGS GO IN
SPACE'S IN HOPPER
BOTTOM BETWEEN
SHURE'S

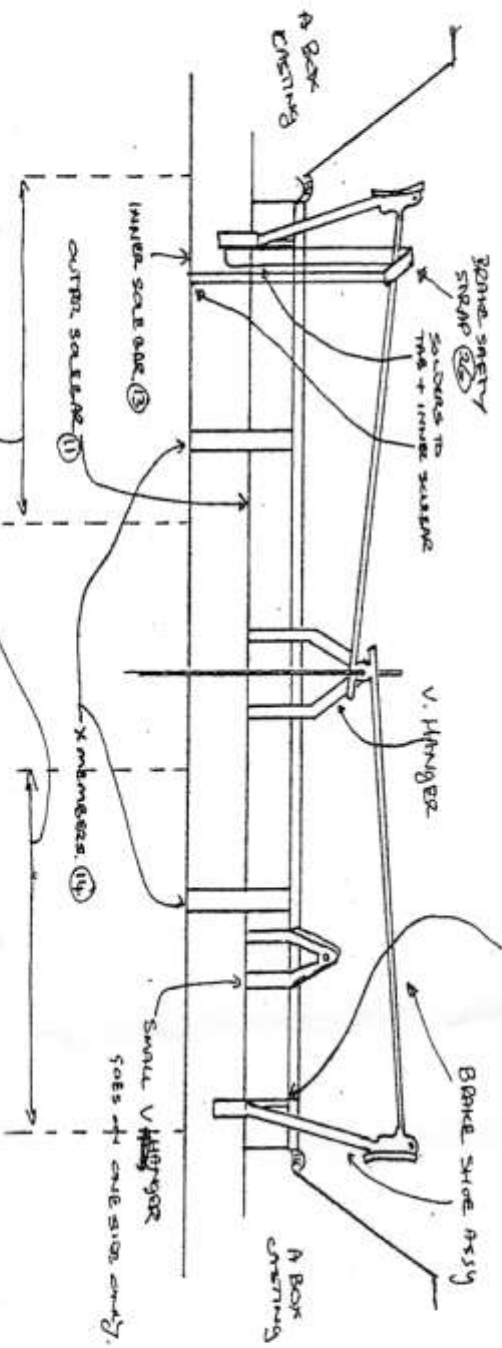


Dwg 3 Chassis assy.



Drw 9 Brake layout

BRAKE SHOE ASSY ALIGNED WITH TOP (BOTTOM) OF SQUEALS



HEIGHTS EXISTING BOTTOM SECTION APPROX

VIEWS LOOKING FROM DAMAGED BRAKE HANGER SIDE WITH SMALL V HANGER, LOOKING FROM UNDERSIDE FROM CENTRE TO OUTSIDE EDGE.

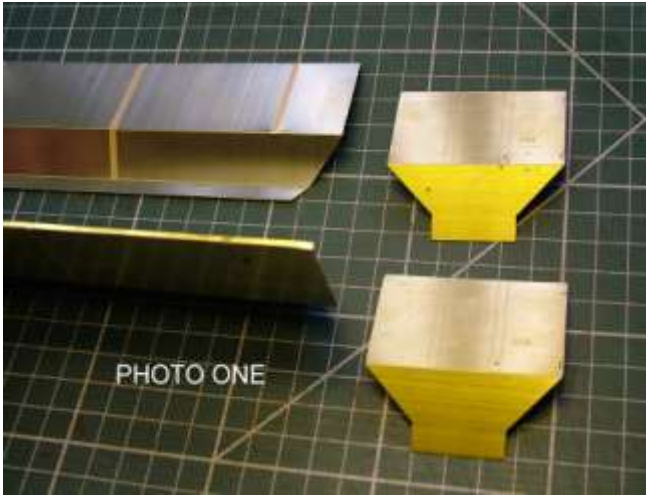


PHOTO ONE

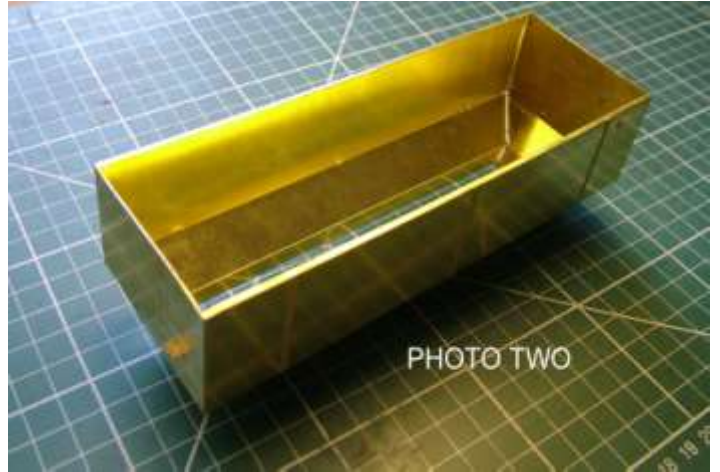


PHOTO TWO

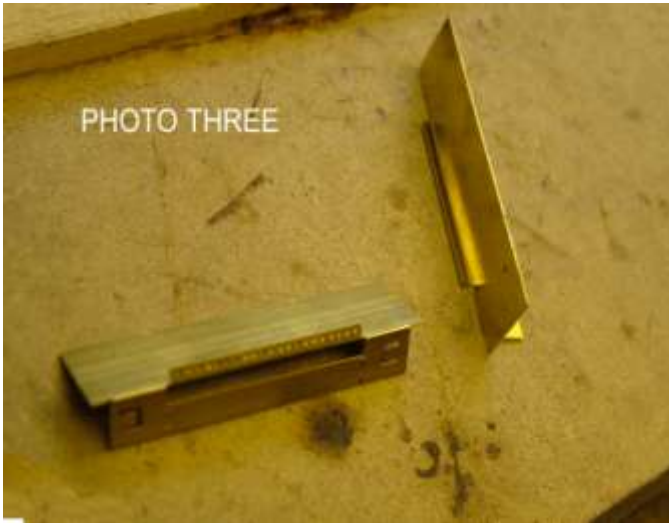


PHOTO THREE



PHOTO FOUR

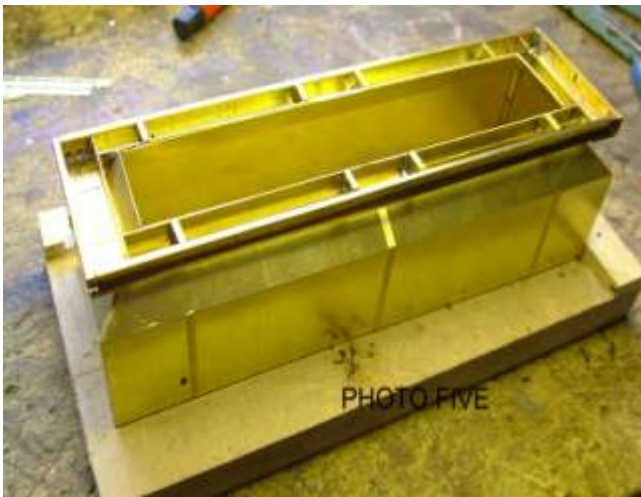


PHOTO FIVE

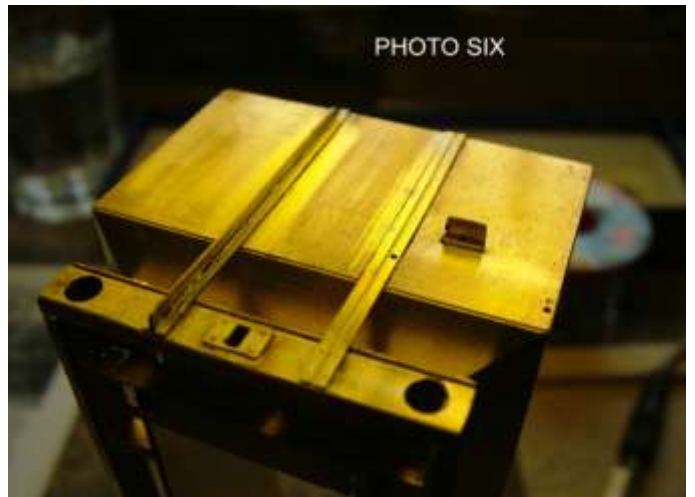


PHOTO SIX

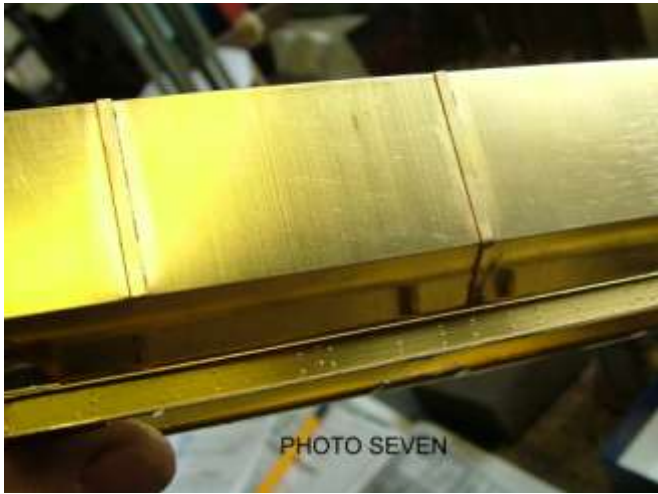


PHOTO SEVEN



PHOTO EIGHT



PHOTO NINE

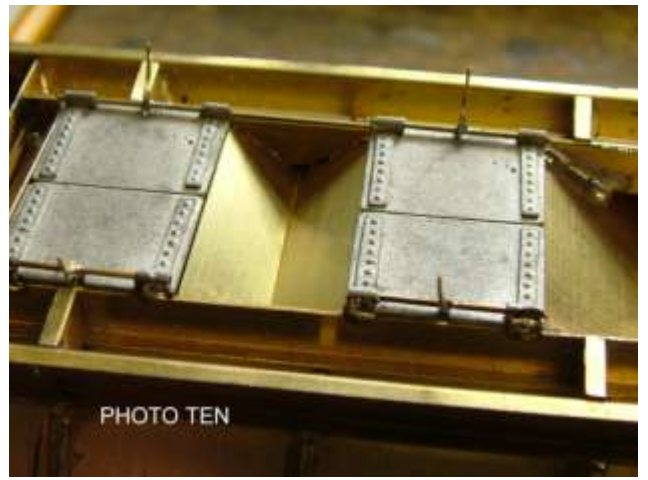


PHOTO TEN

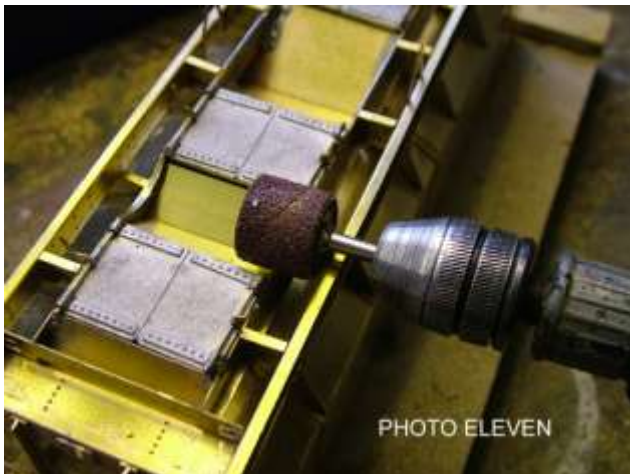


PHOTO ELEVEN

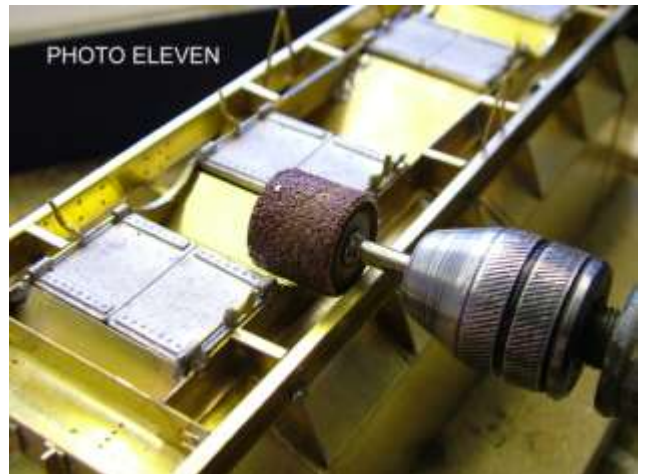


PHOTO ELEVEN

