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Hints and Tips for Ass

Preparation of the Compone

It is very important to ensure the and fit properly. The 'flash line' areas by scraping with a sharp hobby knife a round blade has proven more effective than the attempt to pull the blade along the 'flash line' and all at once. Several light strokes along the 'flash and a single one.

Some areas will be better cleaned up with the second shown these to be areas where a scrapin to the interpretate of the is not permitted due to space limitations. A final light filing the true previously scraped 'flash line' will also ensure a neater appearance. Take care not to 'flatten' round parts by filing too heavily. Again several light strokes are better than one heavy one.

All locating holes for detail fittings should be pre-drilled to the size specified in the instructions. Sometimes it is necessary to clean out these holes, a round 'rat tail' file is best. Take care not to snap off the tip of the file.

Special care is needed for cleaning up the small detail parts. The above mentioned scraping technique is best applied but using the tip of a straight pointed knife rather than the round type. Light filing will also be necessary in the 'difficult to get at' places.

The white metal parts should now be brushed lightly with a suede brush to remove all loose particles of metal from the scrapings and filing. The parts should then be washed in warm 'soapy' water, rinsed and set aside to dry.

The brass etched components can be removed from the 'frets' by either cutting them out with small cutters or by placing the 'fret' on a hard flat surface and tapping the parts out with a small hammer and chisel (keep an old chisel exclusively for this job as it is the easiest way to ruin a good chisel).

Whichever method is chosen be careful not to bend or twist the Brass parts as it can be difficult to get them flat again.

Usually there is very little cleaning up to do on etched Brass parts. If the locating tab has not been cut off flush with the part, it will be necessary to file smooth. Again be careful not to bend the parts.

The Brass parts can now be folded, as per instructions, along the half etched fold lines. Before washing the Brass parts, in the same way as for white metal, soak them for about 20 minutes in some etic acid (vinegar). This will provide a better surface for the

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## ASSEMBLY

White Me led using low melt solder, epoxy re Soldering should only be attempted t is all to easy to melt the white metal comp best painted before assembly. Parts such as Heal parts which are not going to be of parts best painted before assembly. the main bod It is furth the kit be assembled into sub-assemblies and these pa assembly. The instructions will be the best place to s can be built into sub-assemblies.

Where parts are to be epoxyell together first ensure a good fit (by doing a 'Dry-Run') and then carefully apply the adhesive, to one side only and press the parts together. Don't worry if a little epoxy seeps out between the joint. It is much easier to trim it away with a sharp knife when it sets rather than trying to wipe it off. It may, in some cases, be necessary to clamp the parts together while the adhesive sets. Usually propping the parts up with various wooden blocks will be all that is necessary.

The smaller detail parts are best attached using instant glue. It is best applying with the tip of a tooth pick or a needle. If strength is needed or it is a part that works rather use epoxy resin as instant glue does not have good strength in some applications.

After all assembling has been completed, the model should again be washed, in the way already described and primed for painting.

Hope you have enjoyed building your model.

### Address

DJH Grandspot Limited
Leadgate Industrial Estate
Lope Hill Rock
Leadgate
Consett
Co. Durk

## Tools Required

Deill Pir Vice

Selection of Swis (mall)
1 Pair Cutters
1 Pair Pliers
Screwdriver
Tweezers

# Key Code

L/W - Lost Wax Brass
B/E - Brass Etched
T - Turned
P - Plastic
W/M - White Metal
- Remove by cutting

The tender that these be a gether

Bend up etched frames. Between coes (P/N's 2, 3 and 4). Slot into frame and solder into position. The pull blocks (P/N's 8 and 9) to chassis frame. Drop wheels (P/N 5, 6 and 7) to slots and after bending etched keeper plate (P/N 22) screw this into position. Check chassis to ensure there is no short circuit and rectify where necessary.

Fit rear steps (P/N's 36 and 37) to tender part 35 and at this stage solder rear vertical handrails in position from the inside. Clean off any excess solder on inside of tender at handrails. Locate bottom tags on part 35 on footplate (P/N 29) and solder part 35 in position. Take tender footplate (P/N 29) and after soldering buffer beam and buffer beam detail plate together (P/N's 30 and 31) place tabs through tender footplate and solder in position. Fit axle boxes (P/N's 38 and 39) to etched tender side frames (P/N's 32 and 33). Place tabs on top of tender side frames through slots in tender footplate and solder in position. Add drag beam (P/N 34). Add footsteps (P/N's 40 through to 47) and note that slots go to the bottom. Solder completed tender chassis (P/N 1) to footplate by means of locating tabs. Add locomotive connection pin (P/N 48).

Fit tender coal top (P/N 50) followed by fire iron shroud (P/N 51). Add front coal partition (P/N 52) followed by tender backhead floor (P/N 53). Before fitting (P/N 53) add front handrails, Handrail Knobs to part 35, and remove any excess split pin inside this part to allow a snug fit. Fit (P/N 54) followed by handbrake and water scoop handles (P/N 55). Fit coal partition (P/N 60) followed by water overflows (P/N's 61 and 62), water dome (P/N 63) and water filler (P/N 64). [If these parts are being soldered to the white metal tender top, it is better to fit them before fitting (P/N 50) in position]. Add (P/N's 65 through to 76) to complete the tender body.

Remove keeper plate (P/N 22) and fit water scoop (P/N 28) to it. Cut circuit board (P/N 10) into four pieces, as shown in diagram, and fit to sides of (P/N 8 and 9). Solder insulated wire and phosphor bronze pick-up. Thread front insulated wires through the bottom slot below drag beams on engine and tender, and solder these to the motor terminals, ensuring that these are wired the correct way for running.

Brake (E) aned Brake Shoe (E) 4. Etched Brake Shoe (E) 5. 16mm Tender Wheel (T) 6. 16mm Tender Wheel (T) Wire (T 7. 16mm Tender Wheel (T) t Pins x 2 8. Pick-up Block (W/M)
9. Pick-up Block (W/M) rail Knobs x2 cened Coal Partition (E) Water Overflow (W/M) 10. Circuit Board (E) 61. 11. Phosphor Bronze Pick-up Strip (E) 62. Water Overflow (W/M) 12. Circuit Board (E) 63. Water Dome (W/M) 13. Phosphor Bronze Pick 14. Insulated Wire (T) 64. Water Filler (W/M) 65. Steam Heating Pipe (L/W) Phosphor Bronze Pick-up Strip (E) 15. Insulated Wire (T) 66. Vacuum Pipe (L/W) 16. Circuit Board (E) 67. Buffer (W/M)17. Phosphor Bronze Pick-up Strip (E) 18. Circuit Board (E) 68. Buffer Tread (E) 69. Buffer (W/M)
70. Buffer Tread (E) 19. Phosphor Bronze Pick-up Strip (E) 20. Insulated Wire (T) 71. 0.4 Wire (T) 21. Insulated Wire (T)
22. Etched Keeper Plate (E)
23. Spacer Screw M2 (T) 72. 0.4 Wire (T) 73. Coupling Hook 74. Fire Iron (E) 75. Fire Iron (E) 24. Spacer Screw M2 (T) 25. 0.4 Wire (T) 76. Water Measure (W/M) 26. 0.4 Wire (T) 27. 0.4 Wire (T) 28. Water Scoop (W/M) 29. Tender Footplate (E) 30. Buffer Beam (E) 31. Buffer Beam Detail Plate (E) 32. Side Frame (E) 33. Side Frame (E) 34. Drawbar (E) 35. Tender Sides & Back (E) 36. Rear Steps x 3 (E) 37. Rear Steps x 3 (E) 38. Axle Boxes x 3 (W/M)39. Axle Boxes x 3 (W/M) 40. Step Front (Left-hand side) (E) 41. Step Tread (E) 42. Step Rear (Left-hand side) (E) 43. Step Tread (E) 44. Step Rear (Right-hand side) (E) 45. Step Tread (E) 46. Step Front (Right-hand side) (E) 47. Step Tread (E) 48. Tender Loco Connection Pin (W/M)
49. Tender Top Support (W/M)
50. Tender Coal Top (W/M)

51. Fire Iron Shroud (W/M)

Take the bogie body (P/N 93) and fit guard iron unit (P/N 96) after bending to shape. When satisfied that the guard irons do not touch the wheel flanges insert the wheel sets (P/N 94) and fit keeper plate (P/N 95) followed by bogie pivot arm and fixing pin (P/N 97) and 98). Fit to screw (P/N 33) with nut (P/N 145). This completes the chassis.

#### LOCOMOTIVE BODY

Secure captive nut (P/N 6) below cab on footplate (P/N 1). Bend etched cab (P/N 7) to shape as shown in diagram, and check for fit on rear of footplate, filing as necessary until a good fit is obtained. If solder construction is being used solder (P/N's 8 through to 11) to cab and also cinder guards (P/N 119 and 127) . The vertical handrails, Handrail Knobs (P/N 120) are also best fitted at this point.

Secure cab to footplate and then fit drag beam (P/N 12). Fit cab floor (P/N 13) and wood grain overlay (P/N 14). Fit boiler (P/N 2) to firebox (P/N 5) and then fit this unit to footplate and front of cab (P/N 7). The front is secured by a 14mm M2 bolt (P/N 3) going down through the bottom of the smokebox and footplate, with a nut (P/N 4) screwed up through the footplate. This bolt also forms the front fixing of the chassis to the body. At this stage it is best to complete the interior of the cab, fitting (P/N 12) through to 125). The cab roof (P/N 15) may not be fitted. Fit the buffers (P/N 101) to the buffer beam (P/N 16), and fit this unit to the front of the footplate. Fit safety valves, dome, top, feed, chimney and smokebox door (P/N 13) through to 22). The locomotive body may now be detailed with (P/N 13) 99 through to 142).