SR 5500G TENDER IN ORIGINAL CONDITION

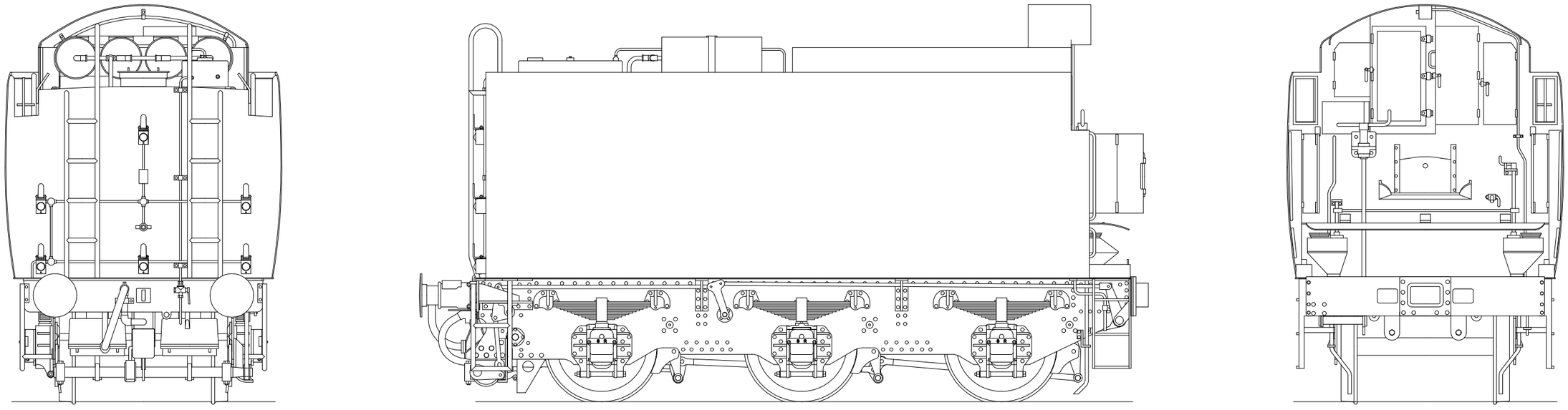


Fig 1. Original Appearance

Side raves
Sanding gear
TIA Water treatment system

5500G TENDER IN REBUILT CONDITION

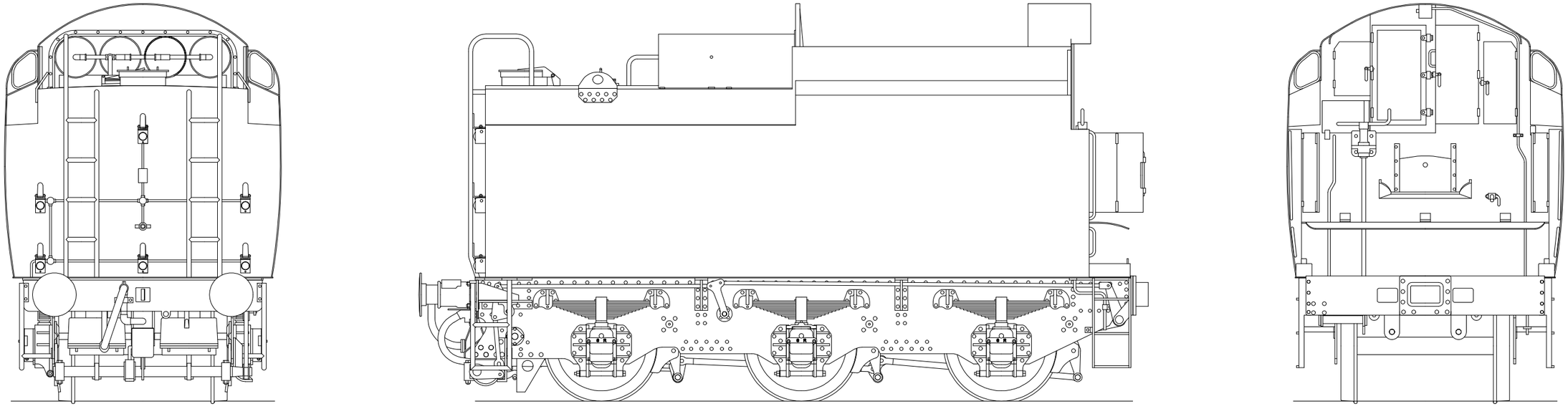


Fig 2. Rebuilt Condition

Cut down side raves with fire iron tunnels
TIA removed and replaced with BR water treatment system
Modified ladders
Extended rear coal plate
Cover over vacuum reservoirs
Sanding gear removed
BR Float type water gauge

CONSTRUCTING THE CHASSIS

CHASSIS AND COMPENSATION

Note that many of the components for both chassis and body are handed left/right and care must be taken to ensure the correct component is used. Components are not always identified left/right separately but with care and common sense no problems should arise.

Open up the holes in the chassis frames (C1) as follows:

1.6 mm to fit the compensation beam pivots

0.8 mm to fit the wire for the brake hanger pivots

4.9 mm to fit the top hat bearings for the rear axle.

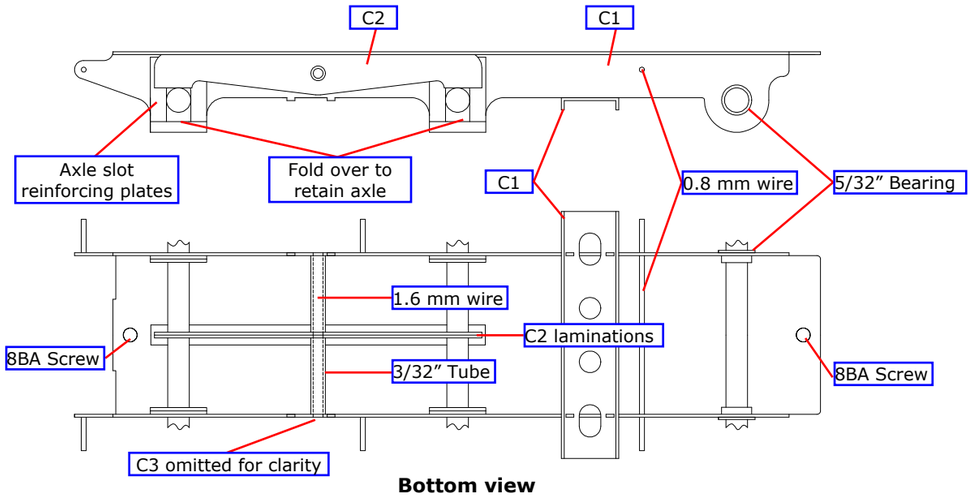
On the chassis frames fold the axle slot reinforcing plates through 180° with the half etched line on the outside of the fold. Widen the slots so that the axles are a sliding fit.

Now fold up the chassis and solder the rear bearings in place. Fold up the edges of the lower transverse stay (C3), with the fold lines on the inside, and solder to the frames.

Construct the compensation beam by soldering the two halves (C2) together. Cut a piece of 3/32" brass tubing to fit between the sides of the chassis frames and solder the beam in place centrally. Fit the beam using a piece of 1.6 mm brass wire as the pivot.

Temporarily fit the wheel sets and check that the chassis is level and works correctly. Wheel side control is limited by using the washers (C4).

Solder the brake hanger pivots from 0.8mm wire in place. Refit the wheel sets and retain as shown in Fig 3.



Bottom view

Fig 3. Chassis and Compensation

BRAKES

Open up the holes in the brake hanger laminations (C5) - upper 0.8mm, lower 1.2 mm. Emboss the rivet detail and solder together. Attach the hangers to the pivot wires. Check the clearance between the brake shoes and the wheels making any necessary adjustments.

The brake cross shafts are made from 1.2 mm wire. Drill 1.2 mm through the cross shaft holes in the pull rods (C6), the centre axle pull rod overlay (C7) and the rear axle pull rod overlay (C8), Using the 1.2 mm drill to aid alignment, solder the overlays to the pull rods as shown in Fig 4. Now assemble the cross shafts and pull rods so that the front pull rods are outside the chassis frames. The rear pull rods (F42)are pinned to the cranks on the front pull rods with 0.8 mm wire and run inside the chassis frames as shown in Fig 4. Do not solder the rear pull rods to the cranks.

No.	Description	Sheet			
C1	Fold up chassis frames	1	C6	Brake pull rod - (2)	3
C2	Compensation beam (2)	1	C7	Brake pull rod overlay, centre axle (2)	3
C3	Lower transverse stay (2)	3	C8	Brake pull rod overlay, rear axle (2)	3
C4	Washer wheel side control	3	C9	Brake cross shaft lamination (2)	3
C5	Brake hanger/shoe lamination (12)	3	F42	Rear brake pull rod lamination (2)	3

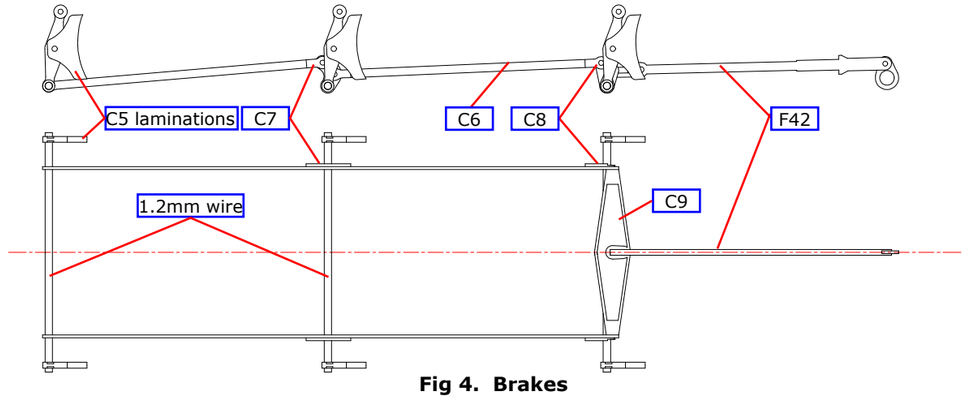


Fig 4. Brakes

CONSTRUCTING THE FRAMES, DRAG BEAM & BUFFER BEAM ASSEMBLY

FRAME PREPARATION

First open out the axle box holes marked red in Fig.5 to accept the cast spigot on W1, emboss all the rivets on the outside frames left & right (F1 & F2), guard irons (F3), the tank & frame bracket angle (F16), brake cylinder pivot bracket left & right (F39 & F40). Solder to the frames the six brake hanger pin caps (F4), the sand pipe brackets (F12) (if appropriate), the tank & frame bracket angle (F16), the tank & frame brackets, left & right (F14 & F15), and the rear brake shaft bearings left & right (B2 & B4).

Bend the guard irons and fold the brake cylinder pivot brackets, left & right, (F39 & F40) to shape and locate on the inside of the frames. The embossed dimples on the components are designed to locate in the rivet holes on the inside of the frames. Add the handbrake crank pivot bracket middle (F30) together with a pivot from 1.0 mm wire.

FRAME CONSTRUCTION

Emboss the rivets on the drag beam (F6), drag beam drag box (F7), the buffer beam (F18) and the buffer beam drag box (F22). Open up the holes in the drag beam drag box (F7) to accept the wire for the loco/tender flexible pipe connections. Fold up the drag beam drag box and the buffer beam drag box and solder 8BA nuts in place as shown in Fig 6. Solder the drawbar pin (1.6 mm wire) in place in the drag beam drag box. Fold up the two stretchers (F13).

Open up the holes in the buffer beam (F18) to fit the buffers, form the hook for hanging the screw coupling, drill through the hole to accept the TIA drain cock (B20), if appropriate, and solder the coupling pocket (F19) in place.

Solder the frames and the stretchers (F13) together checking that the assembly is square. Solder the drag box (F7) and drag beam (F6) in place. Fold up the handbrake front bracket (F27) and place it in the slot at the front of the right frame against the drag beam; solder in place. Solder the buffer beam drag box (F22) and buffer beam (F18) in place.

HAND BRAKE & GUSSETS

Emboss the rivets on the hand brake stop (F17), RH buffer beam gusset (F24) and LH buffer beam gusset (F23). Carefully fold down the internal tab on the right gusset to form the inner plate for the pivot. Attach the external pivot plate (F26) and open both bearing holes to 0.8mm.

Attach parts (F17) & (F24) to the RH frame and (F23) to the LH frame. Finally add the web (F25) to the RH buffer beam gusset (F24).

BUFFER PREPARATION

Assemble the self-contained buffers as shown retaining the buffer by soldering the buffer retaining washer to the tail of the buffer. If appropriate, add the steps (F20).

No.	Description	Sheet			
F1	Outside frames, left	2	F19	Coupling pocket	3
F2	Outside frames, right	2	F20	Buffer step (2)	3
F3	Guard iron (2)	3	F21	Buffer retaining washer (2)	3
F4	Brake hanger pin cap (6)	3	F22	Buffer beam drag box	2
F6	Drag beam	2	F23	Buffer beam gusset, left	3
F7	Drag beam drag box	2	F24	Buffer beam gusset, right horizontal	3
F12	Sand pipe bracket (2)	3	F25	Buffer beam gusset, right vertical	3
F13	Stretcher (2)	2	F26	Buffer beam gusset, right hand brake pivot	3
F14	Tank/frame bracket, left (2)	3	F27	Hand brake bracket front	3
F15	Tank/frame bracket, right (2)	3	F30	Handbrake crank pivot bracket, middle	3
F16	Tank/frame bracket angle (4)	3	F39	Brake cylinder pivot bracket left frame	3
F17	Hand brake stop	3	F40	Brake cylinder pivot bracket right frame	3
F18	Buffer beam	2			

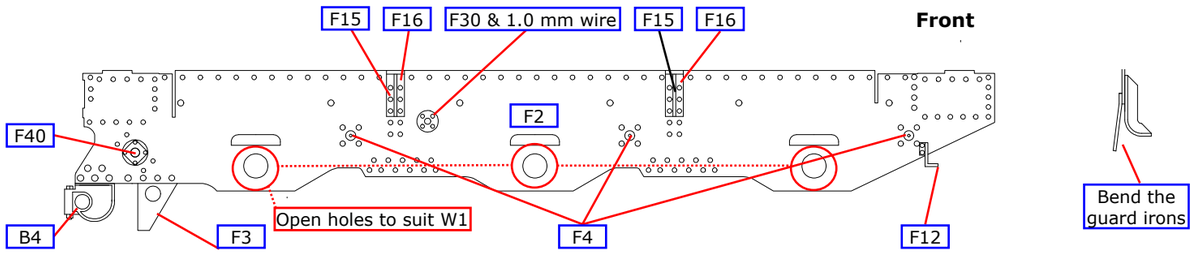


Fig 5. Frame Preparation. Outside View of Right Frame

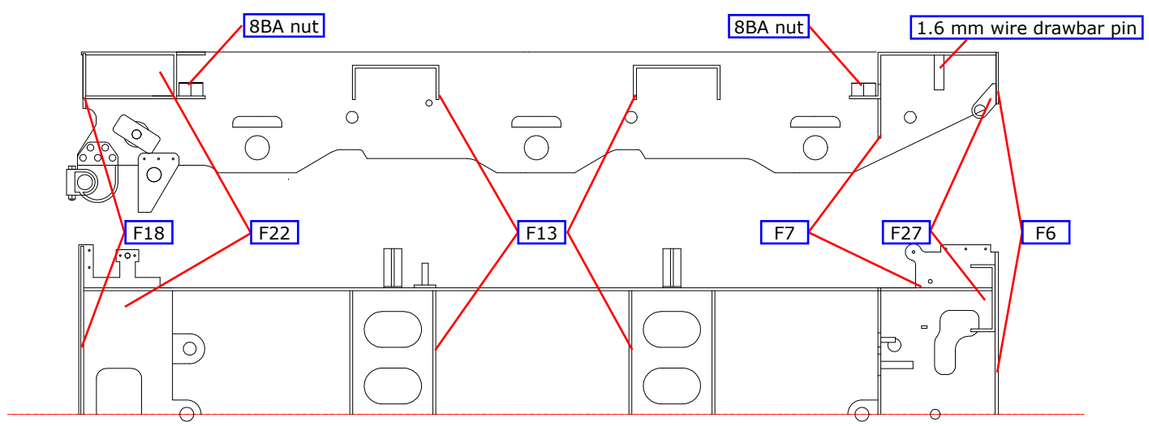


Fig 6. Frame Construction

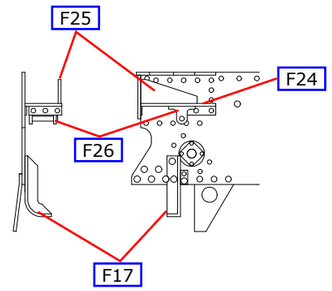


Fig 7. Hand Brake

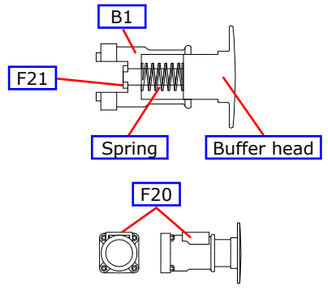


Fig 8. Buffer

BRAKES AND DETAILING

Fold up the brake cylinder central pivot (F38) and solder in place. Cut the rear brake shaft (3/32" wire) to length. Fold to shape and laminate together the brake cylinder lever laminations (F41) and the rear brake pull rod laminations (F42). Thread these laminated parts onto the 3/32" wire brake shaft and solder the brake shaft in place. Attach the brake cylinders (W6) and solder brake cylinder lever and the rear brake pull rod to the brake shaft in the positions shown in the drawing.

Solder together the rear handbrake crank, the inner, centre and outer laminations (F34, F35 & F36) and mount on the frames as shown below.

Make up the front outside brake lever from the two laminations (F29). Drill a 1.8 mm hole in the front outside brake lever and the hand brake lever and screw (F28). Cut a length of 1.8 mm wire to length and thread through the hand brake bracket, the outside lever and the lever and screw. Solder in place; the lever and screw can then be soldered into place.

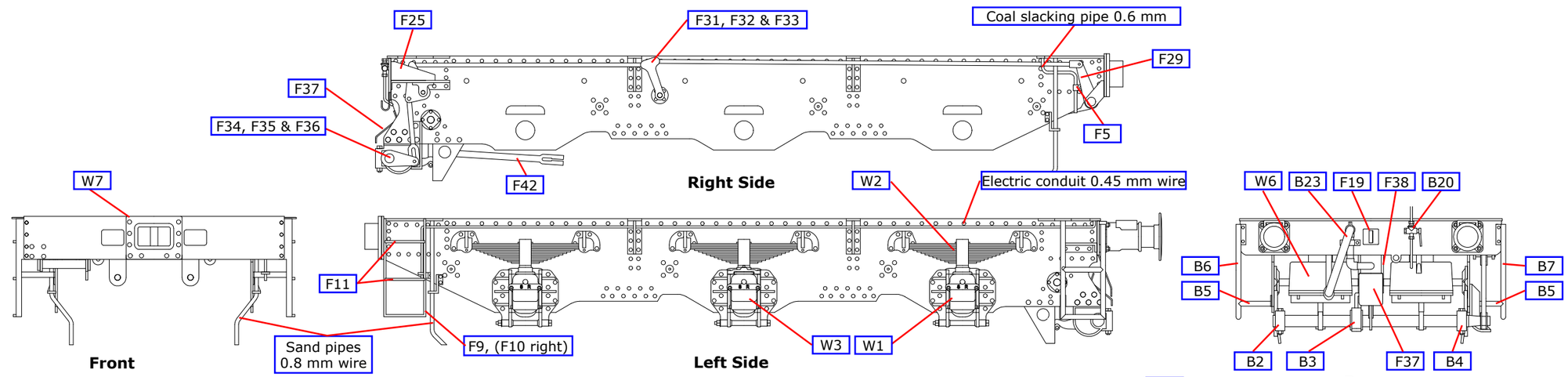
Make up the hand brake middle crank from the inside layer (F31), the spacer (F33) and the outer layer (F32). Make up the 0.8 mm pull rods to match the drawing as accurately as possible. Add the handbrake system.

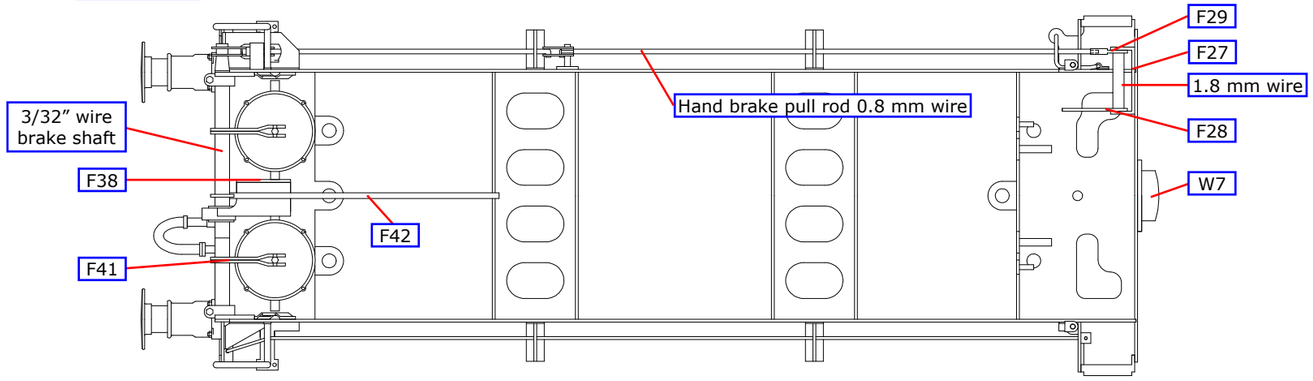
Make up the front steps, left and right (F9 and F10) with two rungs a side (F11). Solder in place in the appropriate holes in the front drag beam. Modify the rear step castings (B6, B7 & B5) as detailed in the box below. Solder together and then mount in the holes in the rear drag beam.

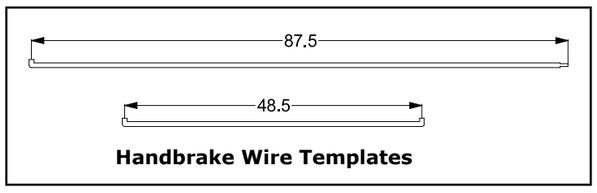
Make the electric conduit from 0.45 mm wire and bend to suit the drawing. The coal slacking pipe is made from 0.6 mm wire and held in place by a clip (F5). This is best annealed before bending.

Add the remaining components as shown in Fig 9.

No.	Description	Sheet	No.	Description	Sheet
F5	Coal slacking pipe clip	3	F33	Middle handbrake crank spacer	3
F9	Front step, left	3	F34	Rear handbrake crank inner lamination	3
F10	Front step, right	3	F35	Rear handbrake crank outer lamination	3
F11	Front step rung (4)	3	F36	Rear handbrake crank & rod centre lamination	3
F28	Hand brake screw and lever, front	3	F37	Coupling plate	3
F29	Front handbrake lever outside lamination (2)	3	F38	Brake cylinder pivot bracket centre	3
F31	Middle handbrake crank inner lamination	3	F41	Brake cylinder lever lamination (4)	3
F32	Middle handbrake crank outer lamination	3	F43	Steam heating pipe lever	3







Handbrake Wire Templates

Fig 9. Brakes and Detailing

CONSTRUCTING THE TANK IN ORIGINAL CONDITION SHEET 1

BASIC CONSTRUCTION

Clear the cusp from all holes. Solder the four 8BA nuts over the four holes in the base plate (T1). Check that the frames assembly can now be screwed under the base plate.

Clear the cusp from all holes in the tank back (03). Solder the tank back to the base plate ensuring that they are perpendicular to each other.

Drill through and open out all the holes in the rear tank top (O5). Carefully roll the curve in the rear tank top and check for fit with the tank back and coal hopper back (04).

Solder the coal hopper back to the base plate, again ensuring they are perpendicular to each other. Then solder the rear tank top in place.

File off the half etched section on the rear half of the outer edge of the tank top/tank side/bunker side (T10), to leave the outer edge straight along its entire length. Drill through the holes for the fire iron cruciform (T23) and the vent pipes.

Emboss the locating dimples for the rear lifting brackets (T13) in the tank top/tank side/bunker side (T10) and make the long fold, checking against the coal hopper back. Solder part T10 in place. Solder the angle strip overlay (T9) to coal hopper back. Solder the rear lifting brackets, (T13) in place.

Emboss the locating dimples in the coal hopper (T5) for the front lifting brackets (T14) and fold it up. Solder the lifting brackets in place.

TENDER FRONT

Select the appropriate front plate - original condition or with water gauge (06 or 07). Emboss all appropriate rivets and the locating dimples for the locker catches (T26 and T27) and, if required, the sanding levers (011 and 012). Open up the holes to fit the bucket cock (B16) and the handbrake (B21). Cut, with a sharp blade, short lengths of 0.45 mm copper wire for the door hinges and solder in place.

Emboss the rivets on the fall plate (O9), curve to shape, fold down the hinges, and check for fit in the front plate. Add the fall plate hinges (T33) in the recesses in the front plate.

Fold up and form to shape the edges of the shovelling plate (T19) and solder in place below the coal hole. Add the coal door, closed or open (T17 or T18) and the coal door handle (B17).

Fold up and attach the sanding lever brackets, left and right (O11 and O12). Fit the sanding rod bracket laminations (O10) using the template in Fig 10 to make the connecting rod. The operating rod is made from 0.7 mm wire and fits as shown with the sanding lever casting (B22) on top.

Solder the two front plate brackets (T20) in place as shown. Form the coal slacking pipe, from 0.6 mm wire, check that it will fit through the hole in the base plate and solder in place. Form the conduit pipe from 0.45 mm wire, allowing enough to locate in the lamp in roof casting, attach with the lighting conduit clip (T22) and again check that it will fit through the hole in the base plate.

Emboss the locating dimples on the front plate shelf/bracket (T24) and the coal space door (T30). Make the fold in the front plate shelf/bracket. Solder the coal space door in place and add the coal space door catch (T31) and the door hinges from 0.45 mm wire.

From 0.45 mm wire form and fit the small handrail on the coal space entrance left side (T28). Assemble the coal space entrance left and right sides (T28 & T29) and the front plate/shelf (T24) with the front plate. Solder the angle piece under the locker (T25) in place.

Form the part of the coal slacking pipe on the back of the front plate, from 0.6 mm wire, and attach with the coal slacking pipe clips (T21) as shown. Solder the locker catches, large locker and small locker (T26 and T27) in place.

Complete the front detailing by adding the bucket cock (B16), and the handbrake (B21). Add the white metal steps, left and right (W8 & W9), note that the raised foot fence faces the front of the engine and the curved side matches the tender side. Finally fit sand boxes, left and right (W10 & W11).

No.	Description	Sheet			
T1	Base plate	3	T26	Locker catch, large locker (2)	3
T5	Coal hopper	2	T27	Locker catch, small locker	3
T9	Angle strip overlay on coal hopper back (2)	3	T28	Coal space entrance, left side	2
T10	Tank top/tank side/bunker side (2)	1	T29	Coal space entrance, right side	2
T13	Lifting bracket, rear (2)	3	T30	Coal space door	3
T14	Lifting bracket, front (2)	3	T31	Coal space door catch (3)	3
T17	Coal door, closed	1	T33	Fall plate hinge (3)	3
T18	Coal door, open	1	03	Tank back	2
T19	Coal shovelling plate	3	O4	Coal hopper back	2
T20.	Front plate bracket (2)	3	O5	Rear tank top	3
T21	Coal slacking pipe clip (4)	3	O6	Front plate, original condition	2
T22	Lighting conduit clip	3	O7	Front plate with water gauge	3
T23	Fire iron cruciform	3	O9	Fall plate	1
T24	Front plate shelf/back	3	O10	Sanding rod bracket lamination (4)	3
T25	Angle piece, under locker	3	O11	Sanding lever bracket left	3
			O12	Sanding lever bracket right	3

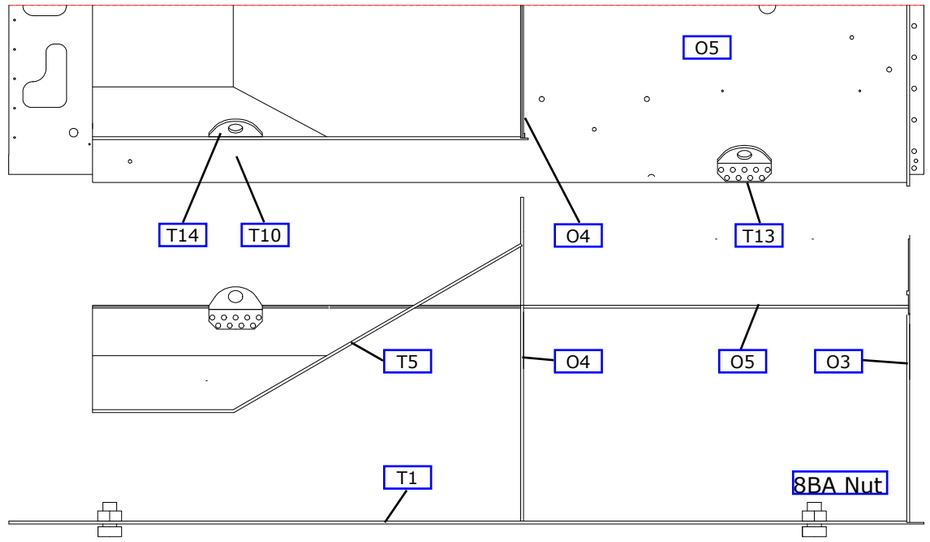


Fig 10. Tank Construction

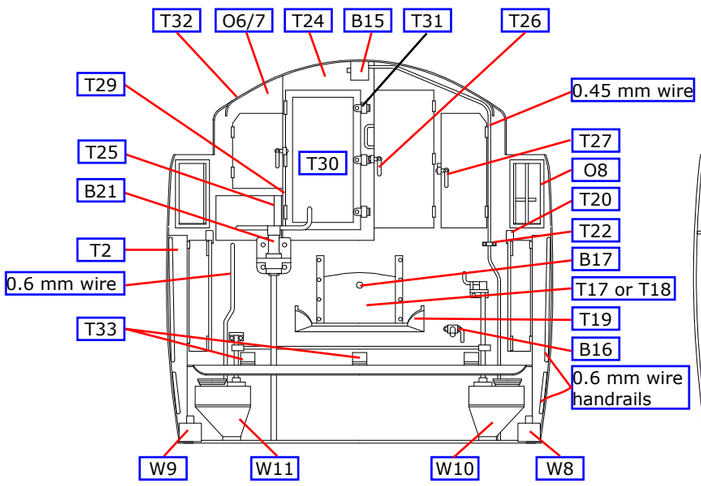


Fig 11. Front Plate

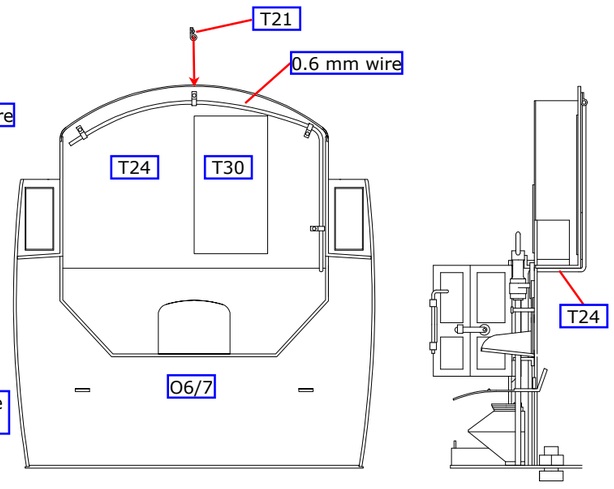


Fig 12. Front Plate, Shelf and Back

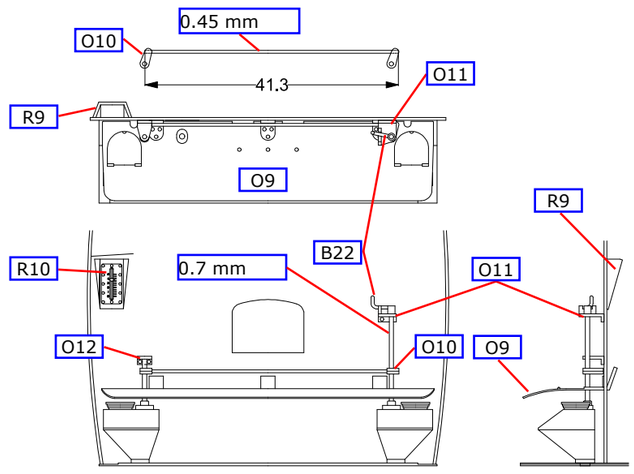


Fig 13. Sanding Details

CONSTRUCTING THE TANK IN ORIGINAL CONDITION SHEET 2

Check the fit of the front plate, coal hopper and the tank top/tank side/bunker side before soldering the assembly together constantly checking the assembly is both flat and square. Most of the soldering can be done from the inside.

Add the coal hopper side webs, rear, middle and front (T6, T7 & T8) inside the coal hopper.

Form the front vent pipes from 1 mm wire and solder in place as shown. Add the fire iron cruciform (T23).

Carefully roll the curve in the tank sides (O1). Check the fit of the sides against the front plate, coal hopper back and tank rear. Solder in place. Solder the tank side strengthening webs (02) in place.

Make up the front handrails, from 0.6 mm wire, solder to the door plate (T2), and clean up flush on the back. Fold back the cab door hinge pins and strengthen with a fillet of solder. Solder the door plates to the tank sides.

Insert the fall plate (O9), it will be trapped by the door plates, and then solder the tank sides in place.

Form the cab roof (T32) to shape and solder in place. Add the lamp on cab roof (B15).

Anneal the hinges on the cab doors (T15), by heating in a flame and bend to shape around a 0.8 mm piece of wire. Similarly form the loops for the pins that will attach the doors to the locomotive cab around a 0.5 mm drill. Make the bend in the doors. Add the cab door catch (T12) and detail the doors as shown in Fig 15.

Drill through 0.9 mm holes in four of the vacuum reservoir ends (W4). Assemble the four vacuum reservoirs using the four lengths of 3/8" tube. Attach the vacuum reservoir timber supports (W5) in the tank top. Detail the vacuum reservoirs as shown. Add the vacuum reservoir strap (O13) with two lengths of 0.8 mm wire to act as the securing rod. Add the vacuum reservoir pipes (B25) and the pipe from 0.9 mm wire. Solder the water filler (B18) in place.

Add the details for the lamps and conduit (0.45 mm wire) to the rear as shown in the diagram.

Add the water treatment components, the TIA air pipe top flange (T11) and the TIA tank (W11). These are connected as shown with 0.45 mm wire to represent the pipes. The wire is attached to the tank back with the TIA drain pipe clips (T12).

Make up the ladders as described below and add to the tank.

No.	Description	Sheet			
T2	Door plate (2)	3	T15	Cab door (2)	1
T3	Rear ladder jig - left	2	T16	Cab door catch (2)	3
T4	Rear ladder jig - right	2	T23	Fire iron cruciform	3
T6	Coal hopper side web, rear (2)	3	T32	Cab roof	3
T7	Coal hopper side web, middle (2)	3	O1	Tank side (2)	1
T8	Coal hopper side web, front (2)	3	02	Tank side strengthening web (12)	3
T11	TIA air pipe top flange	3	O8	Window frame (2)	3
T12	TIA drain pipe clip (3)	3	O13	Vacuum reservoir strap	3

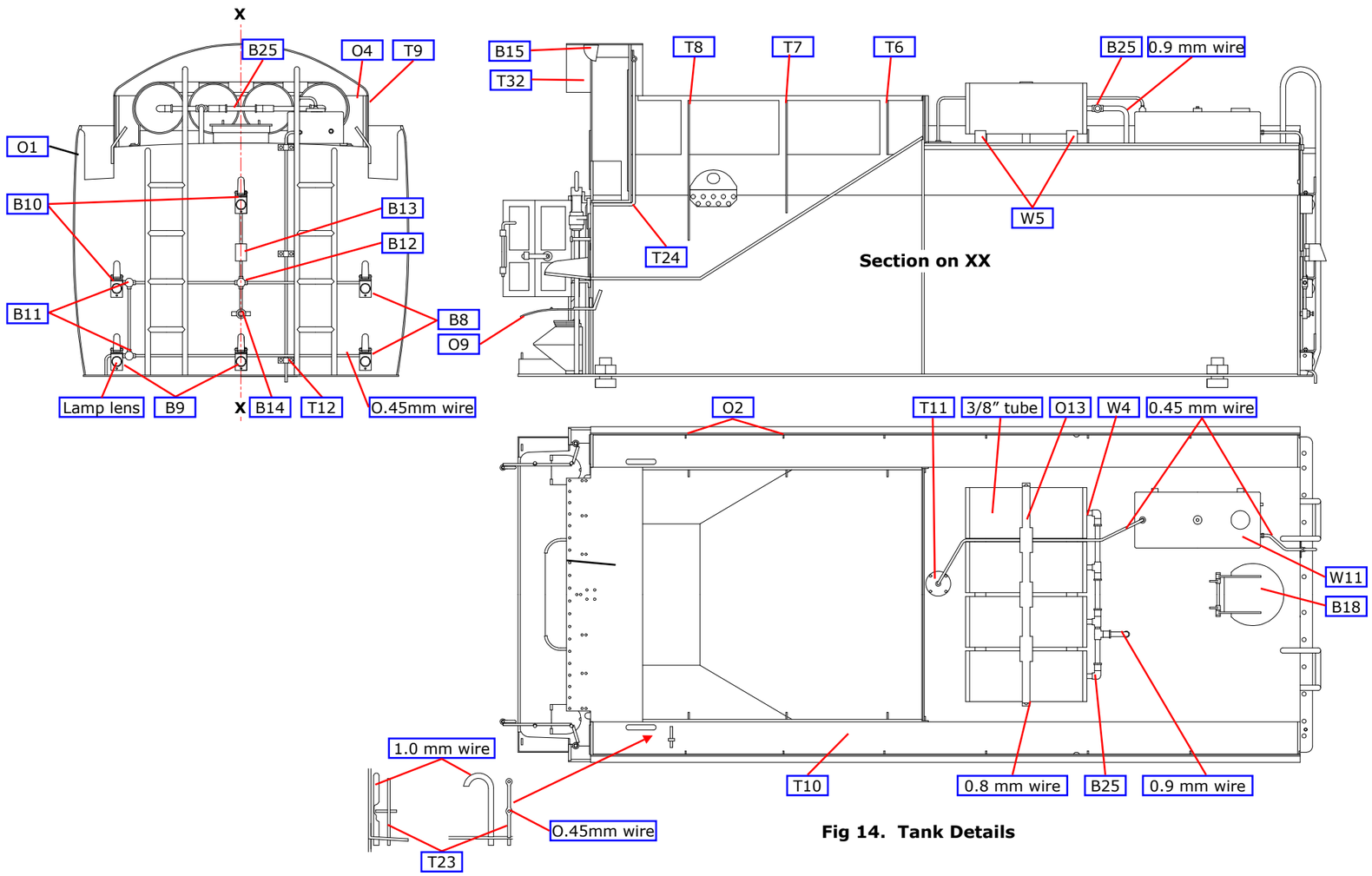


Fig 14. Tank Details

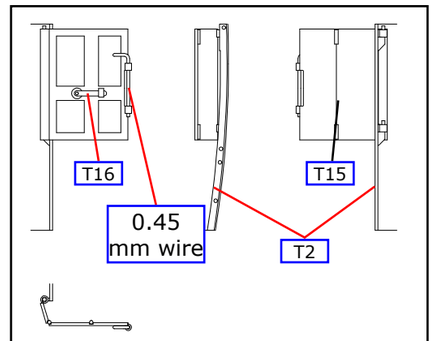


Fig 15. Door Details

REAR LADDERS

Make the ladders as shown below. Only solder wire to jig at X. First bend up the stiles from 1.0 mm wire. Bend up the left and right jigs (T3 & T4) and fit the stiles as shown in the diagram. Cut the rungs to length and solder in place, taking care not to solder them to the jig. To remove the ladders from the jigs, cut the wire at A and gently snap off at B.

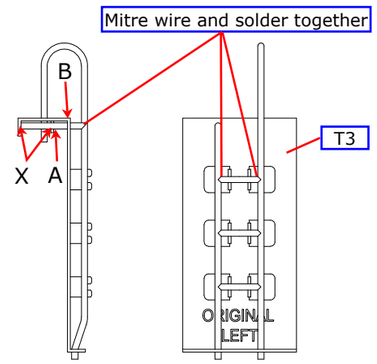


Fig 16. Ladder Construction

CONSTRUCTING THE TANK IN REBUILT CONDITION SHEET 1

BASIC CONSTRUCTION

Clear the cusp from all holes. Solder the four 8BA nuts over the four holes in the base plate (T1). Check that the frames assembly can now be screwed under the base plate.

Clear the cusp from all holes in the tank back (R3). Solder the tank back to the base plate ensuring that they are perpendicular to each other.

Drill through and open out all the holes in the rear tank top (R7). Carefully roll the curve in the rear tank top and check for fit with the tank back and coal hopper back (R4).

Solder the coal hopper back to the base plate, again ensuring they are perpendicular to each other. Then solder the rear tank top in place.

File off the half etched section on the rear half of the outer edge of the tank top/tank side/bunker side (T10), to leave the outer edge straight along its entire length.

Emboss the locating dimples for the rear lifting brackets (T13) in the tank top/tank side/bunker side (T10) and make the long fold, checking against the coal hopper back. Solder part T10 in place. Solder the angle strip overlay (T9) to coal hopper back. Solder the rear lifting brackets, (T13) in place.

Emboss the locating dimples in the coal hopper (T5) for the front lifting brackets (T14) and fold it up. Solder the lifting brackets in place.

TENDER FRONT

Select the rebuilt front plate (R8). Emboss all appropriate rivets and the locating dimples for the locker catches (T26 and T27). Open up the holes to fit the bucket cock (B16) and the handbrake (B21). Cut, with a sharp blade, short lengths of 0.45 mm copper wire for the door hinges and solder in place.

Emboss the rivets on the fall plate (R14), curve to shape, fold down the hinges, and check for fit in the front plate. Add the fall plate hinges (T33) in the recesses in the front plate.

Fold up and form to shape the edges of the shovelling plate (T19) and solder in place below the coal hole. Add the coal door, closed or open (T17 or T18) and the coal door handle (B17). Fold up the water gauge recess (R9), add the water gauges (R10) and solder in place as shown.

Solder the two front plate brackets (T20) in place as shown. Form the coal slacking pipe, from 0.6 mm wire, check that it will fit through the hole in the base plate and solder in place. Form the conduit pipe from 0.45 mm wire, allowing enough to locate in the lamp in roof casting, attach with the lighting conduit clip (T22) and again check that it will fit through the hole in the base plate.

Emboss the locating dimples on the front plate shelf/bracket (T24) and the coal space door (T30). Make the fold in the front plate shelf/bracket. Solder the coal space door in place and add the coal space door catch (T31) and the door hinges from 0.45 mm wire.

From 0.45 mm wire form and fit the small handrail on the coal space entrance left side (T28). Assemble the coal space entrance left and right sides (T28 & T29) and the front plate/shelf (T24) with the front plate. Solder the angle piece under the locker (T25) in place.

Form the part of the coal slacking pipe on the back of the front plate, from 0.6 mm wire, and attach with the coal slacking pipe clips (T21) as shown. Solder the locker catchs, large locker and small locker (T26 and T27) in place.

Complete the detailing of the front by adding the bucket cock (B16), and the handbrake (B21). Add the white metal steps, left and right (W8 & W9), note that the raised foot fence faces the front of the engine and the curved side match the tender side.

No.	Description	Sheet			
T1	Base plate	3	T26	Locker catch, large locker (2)	3
T5	Coal hopper	2	T27	Locker catch, small locker	3
T9	Angle strip overlay on coal hopper back (2)	3	T28	Coal space entrance, left side	2
T10	Tank top/tank side/bunker side (2)	1	T29	Coal space entrance, right side	2
T13	Lifting bracket, rear (2)	3	T30	Coal space door	3
T14	Lifting bracket, front (2)	3	T31	Coal space door catch (3)	3
T17	Coal door, closed	1	T33	Fall plate hinge (3)	3
T18	Coal door, open	1	R3	Tank back	2
T19	Coal shovelling plate	3	R4	Coal hopper back	2
T20.	Front plate bracket (2)	3	R7	Rear tank top	3
T21	Coal slacking pipe clip (4)	3	R8	Front plate	2
T22	Lighting conduit clip	3	R9	Water gauge recess	3
T24	Front plate shelf/back	3	R10	Water gauge	3
T25	Angle piece, under locker	3	R14	Fall plate, sandboxes removed	1

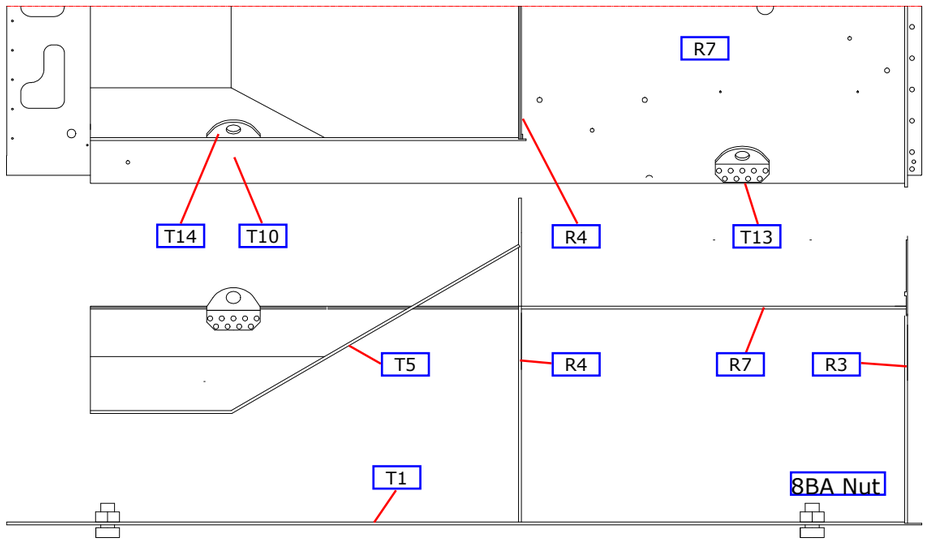


Fig 17. Tank Construction

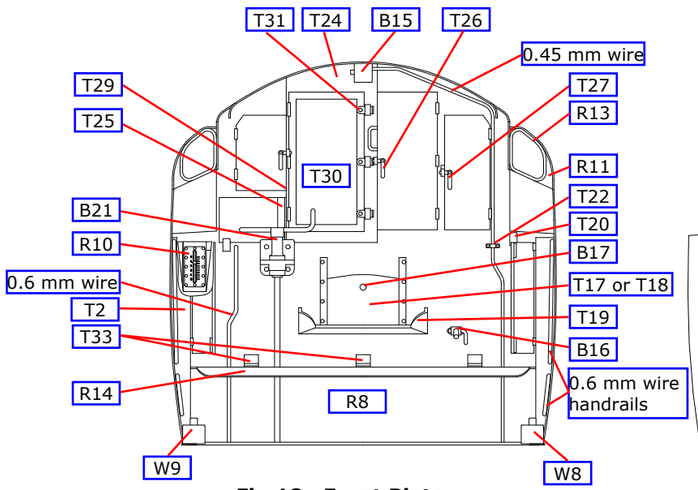


Fig 18. Front Plate

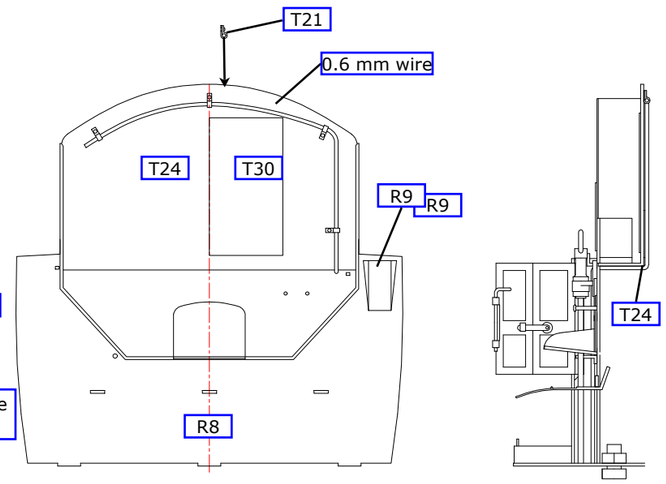


Fig 19. Front Plate, Shelf and Back, Actual Size

CONSTRUCTING THE TANK IN REBUILT CONDITION SHEET 2

Check the fit of the front plate, coal hopper and the tank top/tank side/bunker side before soldering the assembly together constantly checking the assembly is both flat and square. Most of the soldering can be done from the inside.

Add the coal hopper side webs, rear, middle and front (T6, T7 & T8) inside the coal hopper.

Carefully roll the curve in the tank sides (R1). Check the fit of the sides against the front plate, coal hopper back and tank rear.

Fold down the fire iron compartment top and solder the fire iron compartment back (R2) in place.

Make up the front handrails, from 0.6 mm wire, solder to the door plate (T2), and clean up flush on the back. Fold back the cab door hinge pins and strengthen with a fillet of solder. Solder the door plates to the tank sides.

Insert the fall plate, it will be trapped by the door plates, and solder then the tank sides in place.

Form the cab roof (T32) to shape and solder in place. Complete the front detailing by adding the lamp on cab roof (B15), the bucket cock (B16), and the handbrake (B21).

Anneal the hinges on the cab doors (T15), by heating in a flame and bend to shape around a 0.8 mm piece of wire. Similarly form the loops for the pins that will attach the doors to the locomotive cab around a 0.5 mm drill. Make the bend in the doors and detail them as shown in the drawing. Add the cab door catch (T12) and detail the doors as shown in Fig 21.

Drill through 0.9 mm holes in four of the vacuum reservoir ends (W4). Assemble the four vacuum reservoirs. Attach the vacuum reservoir timber supports (W5) in the tank top.

Emboss the rivets in the vacuum reservoir cover (R15) and form to shape. Check its fit over the vacuum reservoirs. Solder the coal hopper back strengthening webs (R5) and the vacuum reservoir front cover (R16) in place and add the coal hopper front angle (R6). Add the vacuum reservoir pipes (B25) and the pipe from 0.9 mm wire, before soldering the cover in place.

Finally add the rear window frame (R12) to the tender sides above the fire iron tunnels. Cut the glazing to size and insert into the rebate before attaching the front window frame (R11). Once secure, add the window frame angle strip (R13) over the outer joint between.

REAR LADDERS

Make the ladders as shown below from 1 mm wire. Form the bends around a 5 mm drill. Only solder wire to the jig at X. First bend up the stiles. Bend up the left and right jigs (T3 & T4) and fit the stiles as shown in the diagram. Cut the rungs to length and solder in place, taking care not to solder them to the jig. To remove the ladders from the jigs, cut the wire at A and gently snap off at B.

No.	Description	Sheet	No.	Description	Sheet
T2	Door plate (2)	3	R1	Tank side (2)	1
T3	Rear ladder jig - left	2	R2	Fire iron compartment back (2)	3
T4	Rear ladder jig - right	2	R5	Coal hopper back strengthening web (2)	3
T6	Coal hopper side web, rear (2)	3	R6.	Coal hopper back top angle	3
T7	Coal hopper side web, middle (2)	3	R11	Window frame - front lamination (2)	3
T8	Coal hopper side web, front (2)	3	R12	Window frame -rear lamination (2)	3
T15	Cab door (2)	1	R13	Window frame angle strip (2)	3
T16	Cab door catch (2)	3	R15	Vacuum reservoir cover	2
T32	Cab roof	3	R16	Vacuum reservoir cover front	1

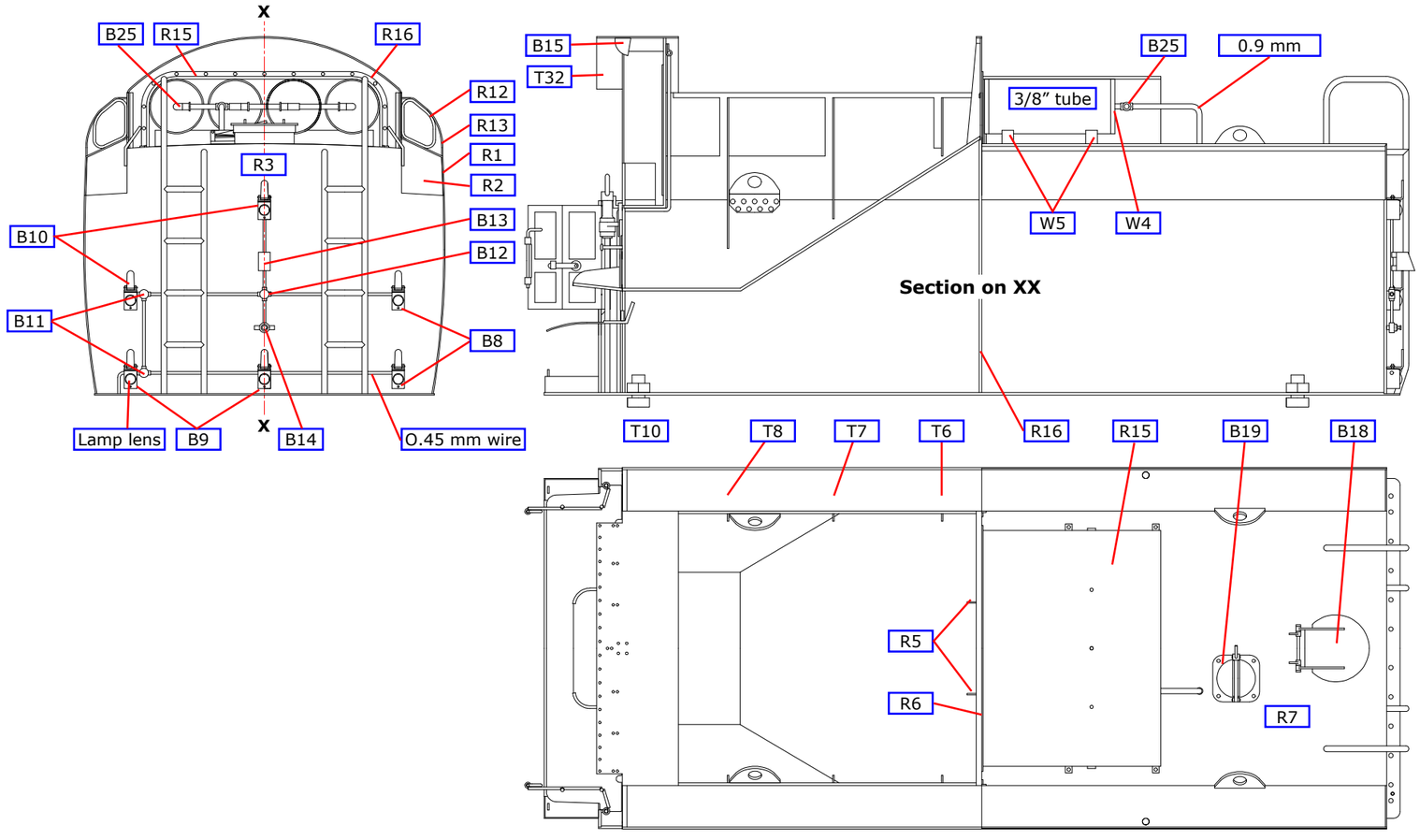


Fig 20. Tank Details

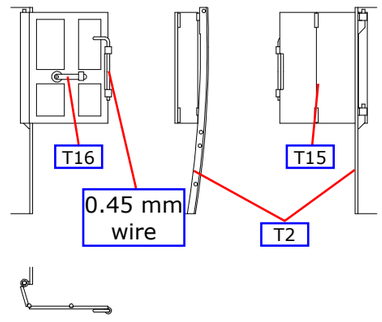


Fig 21. Door Details

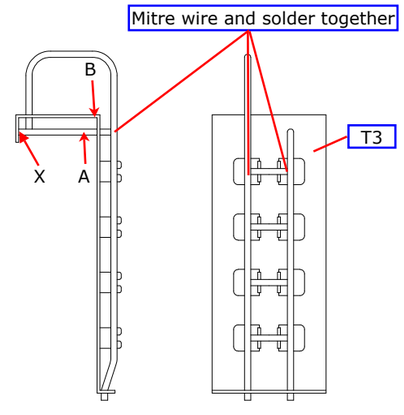
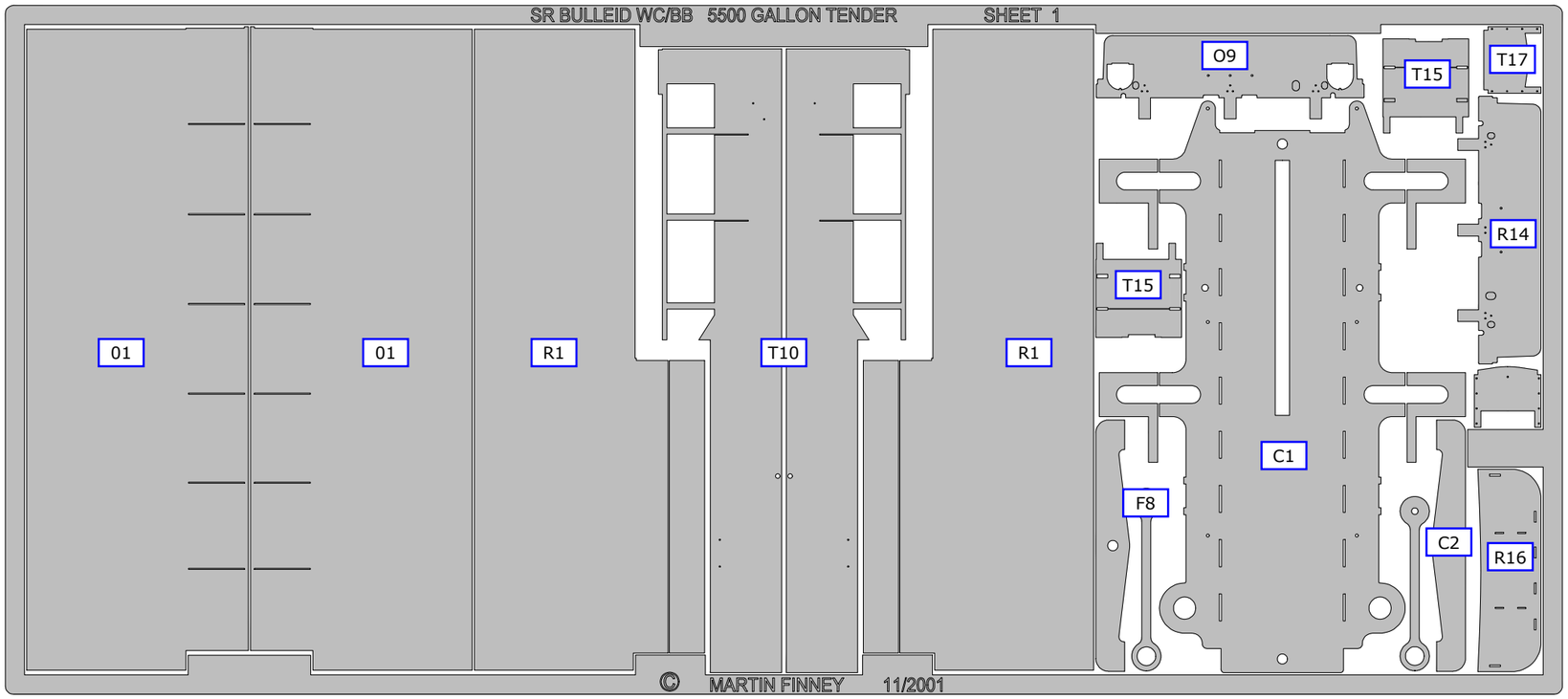
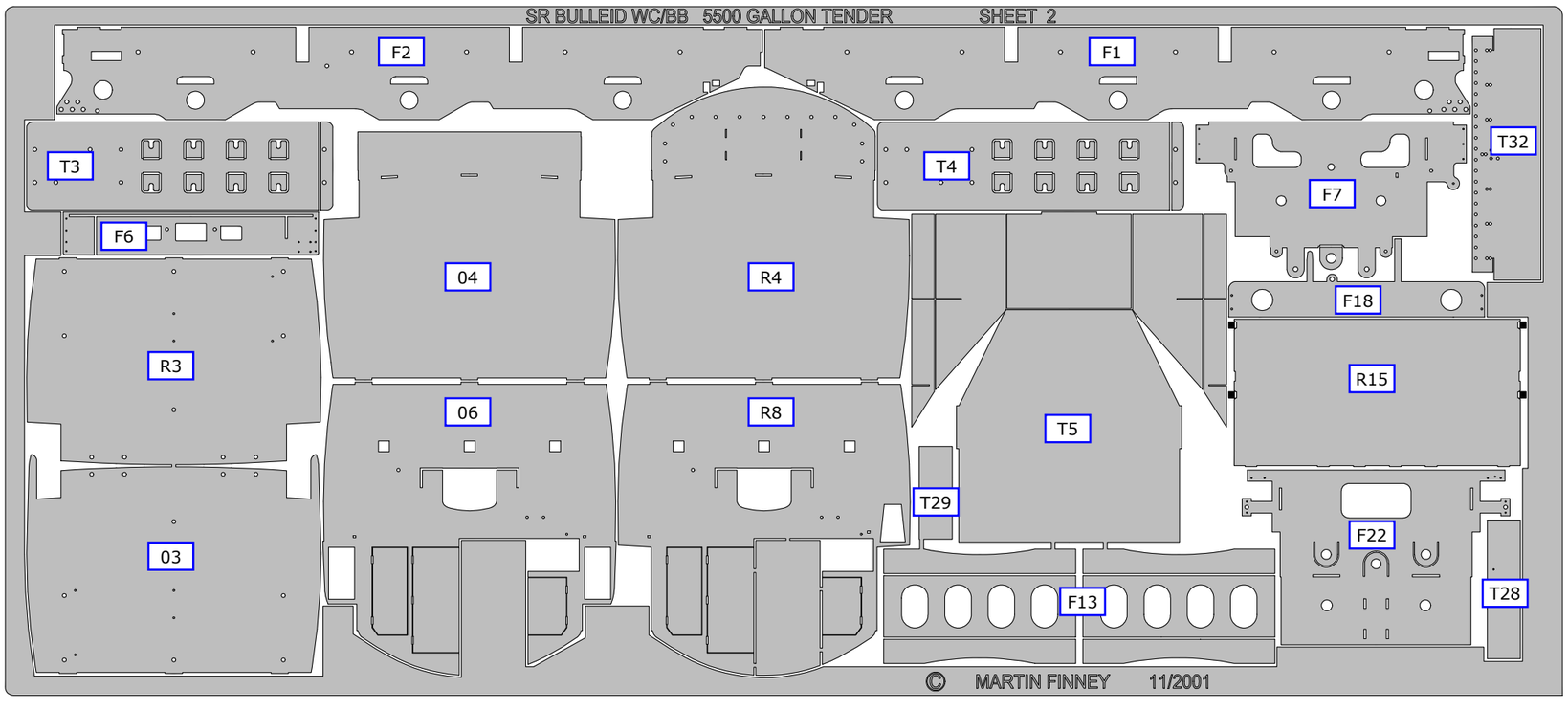


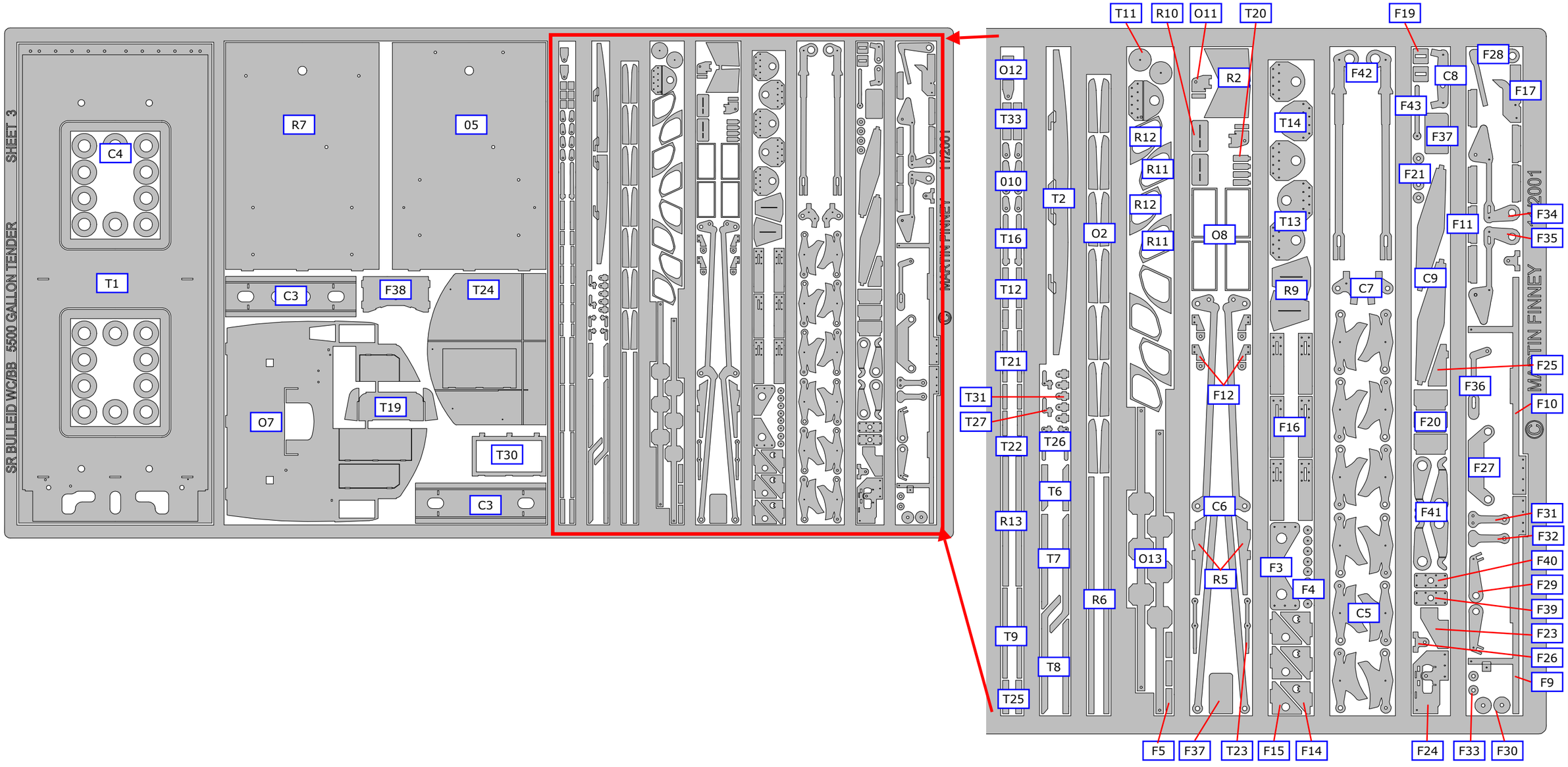
Fig 22. Ladder Construction

ETCH SHEETS 1 & 2





ETCH SHEET 3


SR BULLEID WC/BB 5500 GALLON TENDER SHEET 3
C4
T1
R7
05
C3
F38
T24
O7
T19
T30
C3
T11
R10
O11
T20
F19
O12
R2
F42
C8
F28
F43
F17
T33
R12
T14
F37
R11
F21
010
T2
R12
T13
F34
O2
R11
O8
F11
F35
T16
T12
R9
C7
C9
T21
F25
T31
F12
F36
T27
F16
F10
T22
T26
F20
F27
T6
C6
R13
F41
F31
T7
O13
F3
F32
R5
F40
R6
F4
F29
C5
F39
T9
F23
T8
F26
T25
F9
F5
F37
T23
F15
F14
F24
F33
F30
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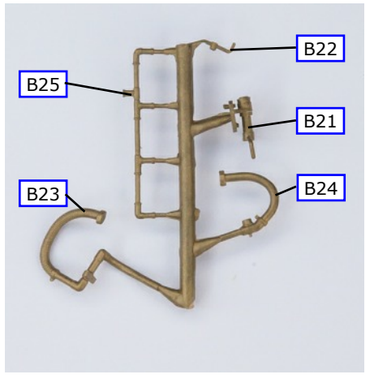
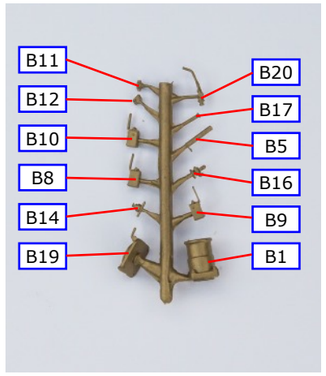
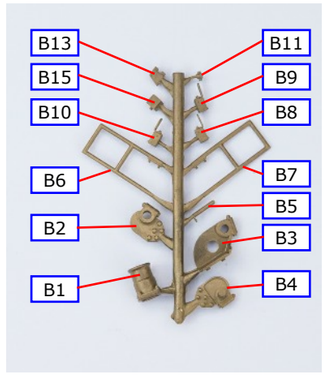
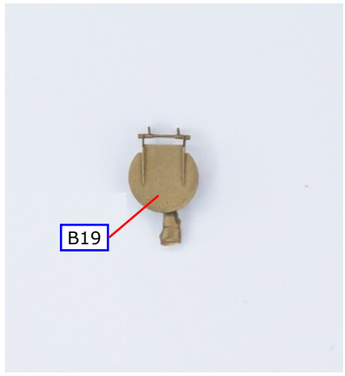
CASTINGS







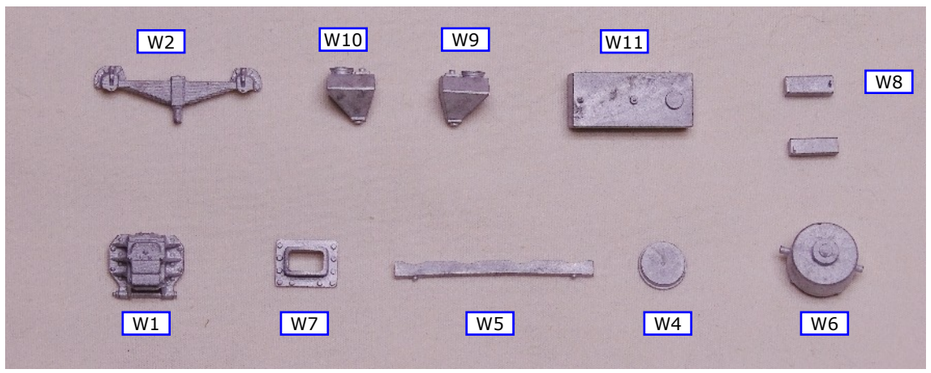


BRASS CASTINGS

B1 Buffer housing (2)
B2 Rear brake shaft bearing, left
B3 Rear brake shaft bearing, centre
B4 Rear brake shaft bearing, right
B5 Rear step stay (2)
B6 Rear steps, left
B7 Rear steps, right
B8 Rear lamp/lamp bracket, left entry (2)
B9 Rear lamp/lamp bracket, left/right entry (2)
B10 Rear lamp/lamp bracket, right/bottom entry (2)
B11 Conduit junction box, 3 way (2)
B12 Conduit junction box, 4 way
B13 Coupling up lamp
B14 Coupling up lamp switch
B15 Lamp in cab roof
B16 Bucket cock
B17 Coal door handle
B18 Water filler
B19 BR water treatment lid
B20 TIA drain cock
B21 Handbrake
B22 Sanding lever
B23 Vacuum pipe
B24 Steam heating pipe
B25 Vacuum reservoir pipes

WHITEMETAL CASTINGS

W1 Axlebox (6)
W2 Spring (6)
W3 Centre axlebox plate (2) (Not available at the time of photograph)
W4 Vacuum reservoir end (8)
W5 Vacuum reservoir timber support (2)
W6 Brake cylinder (2)
W7 Drawbar pocket
W8 Front step above platform
W9 Sandbox, left
W10 Sandbox, right
W11 TIA tank



OTHER COMPONENTS

5/32" bearing (2)
8 BA x 3/16" screw (6)
8 BA Nut (6)
Brass tube - 3/8" diameter for vacuum reservoirs (4)
Brass tube - 3/32" outside diameter for compensation beam
Brass wire - 3/32" for rear brake cross shaft
Brass wire - 1.8 mm for front hand brake cross shaft
Brass wire - 1.6 mm for compensation beam pivot & drawbar pin
Brass wire - 1.2 mm for loco/tender connections and pull rods cross shafts
Brass wire - 1.0 mm for ladders, vents and hand brake crank pivot
Brass wire - 0.9 mm for hand brake column and pipe from vacuum reservoirs
Brass wire - 0.8 mm for brake hanger pivots, sand pipes, hand brake pull rods and rear hand brake cross shaft
Brass wire - 0.7 mm for sand box spindles
Brass wire - 0.6 mm for handrails, coal slacking pipe
Brass wire - 0.45 mm for cupboard door hinges, electric conduits, TIA pipes, sanding rod and cab door pins
Copper wire - 0.6 mm for cab door hinges
Buffer head - (2)
Buffer spring - (2)
Lamp lens - (6)