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Incorporating AR Kits and Main West Models
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NSWGR WAMPU TENDER KIT

E175T Manufactured Exclusively for AR Kits by DJH Engineering from Patterns owned by AR Kits

PLEASE READ INSTRUCTIONS THOROUGHLY BEFORE COMMENCING ASSEMBLY

CONSTRUCTION

It is important to ensure that all parts are clean, free of "flash" (excess metal on castings) and fit properly. The "flash line" is easily removed from most areas by scraping gently with a sharp hobby knife - a round blade is more effective than a straight pointed type. Pull the blade along the "flash line" - several light strokes are better than a single one.

Some areas are better cleaned up with 6" jewellers' files. Take care not to flatten round parts by filing too heavily. 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 with a "rat tail" file; take care not to snap off the tip of the file. Gently wash the castings in warm soapy water to remove mould release residue.

Etched brass items are best removed from the fret by placing the fret on a scrap piece of hard timber (e.g. Pyneboard) and cutting the tabs with a large Stanley knife - cut the tab at the point furthest away from the part, then trim the tab off close to the part with a small pair of quality side cutters. Hold small parts with a pair of flat nosed (not serrated jaws) pliers while cleaning up with jewellers' files. Be careful not to distort the etchings; they are difficult to straighten if bent or twisted. Drill all required holes before assembly, noting the spigot sizes of the fittings, because some holes will be difficult to drill after parts are assembled.

Assembly methods

The two main construction methods are:

(a) Low melt solder - Low melt solder is an excellent medium for use with white metal kits. It is quick and easy providing a stronger joint than can be achieved with glue. It has the added advantage of easily repairing minor casting flaws, and because of the relatively low temperature, many parts can be held in the fingers while soldering. Brass to white metal joints can also be made. Low melt soldering requires the correct type of soldering iron (e.g. Dick Smith T2000). These irons have temperature control, as low melt solder only requires around 200 degrees centigrade. You are advised to use special low melting point solder available from AR Kits.

IT IS NOT ADVISABLE TO ATTEMPT TO SOLDER ANY CASTINGS WITH A STANDARD SOLDERING IRON!

(b) Glue - Superglue and Plastibond are two types of glues suitable for use with this kit. Some modellers prefer to superglue major joints first then "fillet" the joint with Plastibond. Small detail parts are best glued with Superglue.

It does not matter which method you choose but dry fitting parts will ensure a good fit.

The electrical system used on these kits is called "half live". Looking from the top facing forward the tender collects current from the wheels on the left-hand side of the tender.

Cleaning up/Painting

On completion, any areas which were soldered should be washed using a soft brush and methylated spirits. An excellent pressure pack flux remover is also available from Dick Smith stores. Then wash thoroughly in warm soapy water. Rinse with clean water and allow to thoroughly dry before applying a suitable self-etch primer.

Spare Parts

Spare parts are available on a replacement basis. Should any part be missing or damaged contact AR Kits for a replacements. If you have any queries or problems with construction please drop us a note and we will do our best to advise. Likewise we would be pleased to hear any suggestions you may have for improving the kits or instructions.

General

The following drill sizes are required: 0.5mm, 0.8mm, 0.9mm, 2.2mm.

During construction refer to the drawings at all times. A number of parts are quite similar, so double check if in doubt. In the general instructions the part numbers are shown in brackets.

To minimise the risk of losing parts, do not remove them from the etched fret or the plastic packing until you are ready to use them.

Safety First. These models are not toys and are not suitable for young children. White metal castings contain lead and modellers are advised to wash their hands after working with unpainted white metal castings. When using superglue, solder or spray painting make sure your work area is well ventilated

Tender Drawing 1 (Parts Tl - T22)

Take tender back and sides (T2) and fold to form rounded corners, note that the corners have a series of lines etched on the inside of the corners to facilitate **rounded** corners; fold the corners carefully to form a radius corner, not a sharp one. At this point solder the bogie centre pivots (T9x2) to the underside of the tender floor. Now fix the back and sides onto the tender floor (Tl). Note that the arrow etched on top of the tender floor points to the front. Use solder sparingly to avoid excess creeping through join and onto the rivet detail. Fold the door shapes on the tender front (T3) as shown in the small insert drawing 1, then fix to the floor and sides. Bend the coal trough (T4) and fix to the front (T3) noting that the fold on the rear coal trough helps to locate this part.

Fit the side valances (T6x2) followed by front valance (T5). Check that the assembly is "square". Before adding the front steps (T7x2), fold the bottom step as shown. Add front step treads (T8x2). Fit the front bulkhead steps (T10x2) and the brake cylinder (T22) to the tender floor. Test fit the tender top (T11) into the tender body -do fix in place at this stage.

Fix the turned brass side frame mounts (T14x4) to the bogie side frames (T12x4). For good electrical pickup low melt solder is recommended here. The bogie stretchers (T15x2) are on the etched nickel silver valve gear fret - remove them and check that the holes either side fit over the brass side frame mounts (T14), you may need to enlarge the hole slightly. Check also that the holes for screws (T16x4) are large enough. Fold the stretchers as per drawing 1, using a pair of flat nosed (non-serrated) pliers - fold with the etched fold lines to the **outside** of the fold, folding slightly more than 90 degrees (this will provide a slight spring effect to hold the wheel sets in place).

Push the brass wheel bearings (T13x8) in the bogie side frames using low melt solder if necessary, and attach the side frames to the stretcher with 4.Omm long brass screws (T16x4) and washers (also from the nickel silver fret) (T17x4).

Tighten the screws then gently ease the side frames apart to fit the wheel sets (T'18x4) in place, making sure the insulated wheels are on the same side for each bogie - see drawing 1. Place the bogie on a piece of flat track and test run. Some "fine tuning" may be necessary.

Take the bogie mounting screws (T21x2) and attach the assembled bogies to the tender using the springs (T20x2) and washers (T19x2). Note the two springs (T20x2) are cut to a length of 4.Omm from the single spring provided.

Tender Drawing 2 (Parts T23 - T39)

Fit the water filler (T23) and tool box (T24) to the tender top, followed by the coal partition (T37) and the fire iron

bracket (T39). Fit lamp bracket (T32). Using 0.4mm wire, fold and fit rear grab iron. Fit the drawbar pin (T25) using M2 nut (T26). Fold and fit the tender floor (T28). Fit the short handrail knob (T29) noting that the hole is aligned vertically. Using 0.4mm wire make up handbrake stand using handbrake wheel (T30). Fit buffer beam (T34) to the underneath of the floor, noting that the two vertical spigots form the lamp irons.

Now fix the tender top (T11) in place before adding coal (T38) and fire irons (T27x3). Fold and fit the ladder ('I'31) as shown - hook the top of the ladder over the top of the tender into the two dimples provided, (for easy fitting drill out to 0.7mm) and locate the horizontal lugs into the holes on the back of the tender. Secure in place by spot soldering the bottom lugs to the buffer beam (T34). Fit the brake pipe (T36) followed by buffers (T35x2). Fix the lamps (T33x2) to the rear of the tender on the outside edge (and level with the top) of the conduit.

24 Feb 2009

(E175T) - WAMPU TENDER - PARTS LIST

Tender Drawing 1.

Tl.	Floor	E
T2.	Sides and Back	E
T3.	Front	E
T4.	Coal Trough	E
T5.	Drawbar	E
T6.	Valances x 2	E
T7.	Front Steps x 2	E
T8.	Front Steps Treads x 2	E
T9.	Bogie Pivots x 2	T
T10.	Front Bulkhead Steps x 2	E
T11.	Tender Top	W/M
T12.	Bogie Sideframes x 4	W/M
T13.	Wheel Bearings x 8	T
T14.	Bogie Sideframe Mounts x 4	T
T15.	Bogie Stretchers x 2	E
T16.	Brass Screw x 4	T
T17.	Bogie Sideframe Washers x 4	E
T18.	10.5mm Bogie Wheels x 4	T
T19.	Bogie Bearing Washers x 2	E
T20.	Spring x 1	-
T21.	M2 x 8mm C/H Screw x 2	T
T22.	Brake Cylinder	W/M

Tender Drawing 2.

T23.	Water Filler	W/M
T24.	Tool Box	W/M
T25.	Drawbar Pin	T
T26.	M2 Nut	T
T27.	Fire Irons x 3	E
T28.	Tender Floor	E
T29.	Short Handrail Knob	T
T30.	Handbrake Wheel	E
T31.	Ladder	E
T32.	Lamp Bracket	E
T33.	Lamps x 2	W/M
T34.	Buffer Beam	E
T35.	Buffers x 2	W/M
T36.	Brake Pipe	L/W
T37.	Coal Partition	E
T38.	Coal	W/M
T39.	Fire Iron Bracket	E

0.4mm dia. wire

Drill Sizes - Key

0.5mm dia. - A
0.8mm dia. - C
0.9mm dia. - D
2.2mm dia. - I

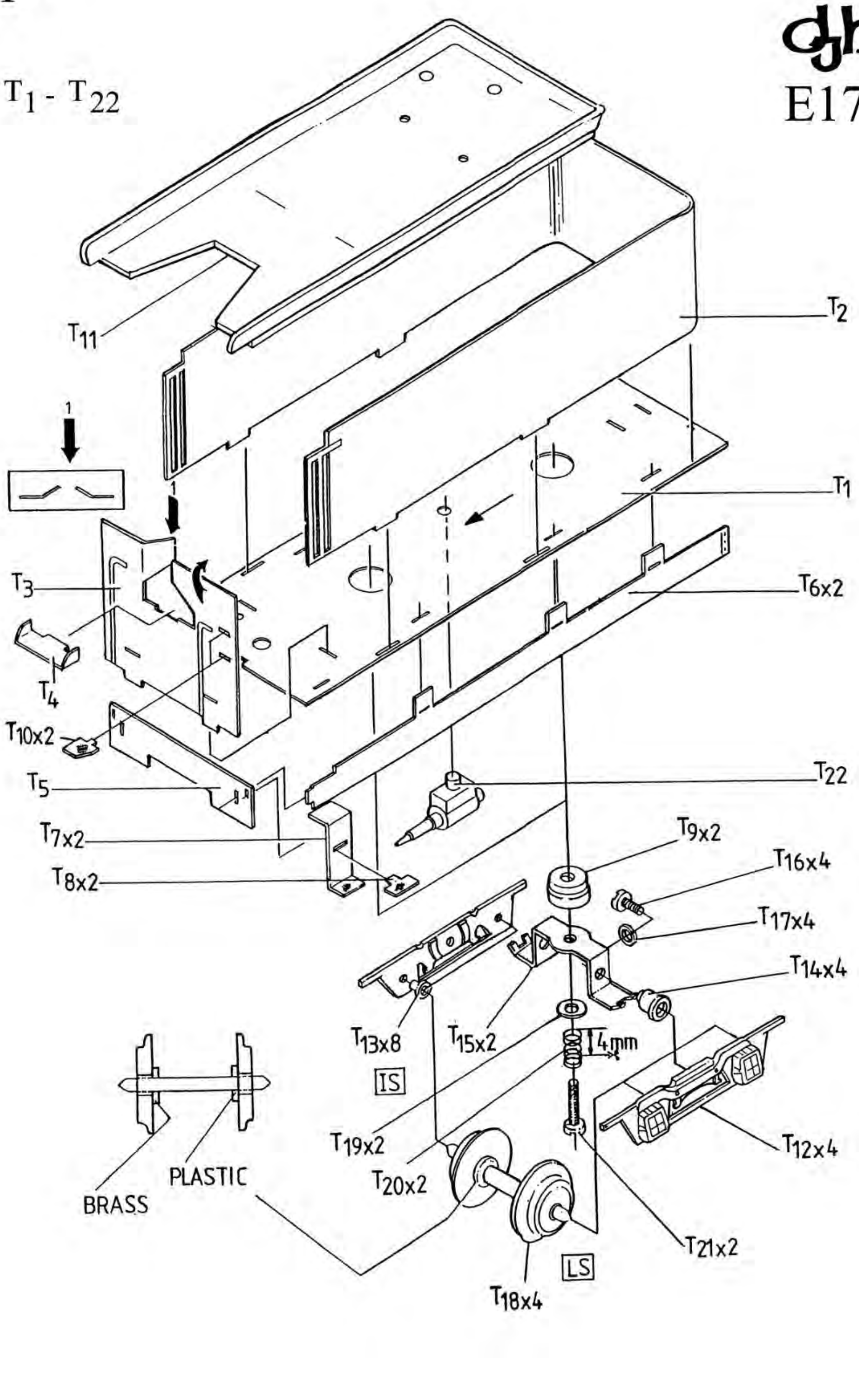
E175T NSWGR WAMPU TENDER KIT - Brass Detail Part

1²

T_1 - T_{22}

djh

E175



T23 - T39

djb
E175