

MT248

NER/LNER/BR J72 0-6-0T CHASSIS & BODY IMPROVEMENT KIT

This kit is intended to replace the mechanism of the RTR J72 by Palitoy Mainline (later Bachmann) and to improve the excellent moulded body. It includes a complete etched chassis that fits directly to the original mechanism mounts, a wooden plug to replace the part of the boiler bottom that forms part of the Mainline chassis, a fold-up cab interior to eliminate unseemly daylight and etched bufferbeam overlays.

The chassis can be built for 00 or EM/P4 gauges, rigid or with suspension, and will take a wide range of drive trains. The simplest & cheapest is a Mashima MH1024 flat-can motor, a MT161 motor mount and Romford 40:1 gears. An alternative is the Comet GB5/15 multi-stage gearbox. The recommended wheels for 00/EM are Markits 4'0" 12 spoke (order code WH200) with Markits crankpins and axles.

If you wish to fit a suspension system, any sprung/compensated system designed to use standard 6mm x 7mm hornguide cut-outs can be used.

Assembly notes

Cut all components from the fret using a heavy craft knife on a firm surface such as a piece of MDF. Do not cut on a yielding surface like a cutting mat as this will distort the etchings.

To erect the mainframes, first select the appropriate frame spacers - 10.5mm wide for 00, or 13mm wide for EM/P4. File off the remnants of the fret tags. If the chassis is to be fitted with suspension components, now is the time to cut out the hornguide openings - a piercing saw is best for this. For a rigid chassis, fit the top-hat axle bearings; you should only have to ease the holes in the chassis very slightly, so go easy. Don't solder the bearings in place just yet. Lastly, there are rivet heads to push out from the rear of the frames above each guard-iron.

Check the fit of the frame spacers in the frame slots. If a locating tongue won't enter a slot, rub the tongue down slightly with 240 grade grit wet-and-dry. This is easier than trying to open out the slot. Now solder the front upper frame spacer in place on one frame, and the rear spacer to the other. This is to even out the heat build-up in the frames when the chassis is finally soldered up, avoiding distortion.

Assemble the chassis upside-down on a flat surface such as an offcut of MDF or a piece of glass. You can hold the components in place with Blu-Tack while soldering - just don't get the Blu-Tack too close to the joint site as it goes

horribly goeey if you get it too hot! Use a 1/8" drill or a piece of 1/8" bar through at least one set of axle bearings to set and maintain frame alignment; use a square to check that everything is square. Trap the centre spacer in place in its slots as you bring the frames together, and hold everything in place with the Blu-Tack; adjust until you're happy all is square. Tack the spacer joints and make a final check before soldering up.

Once the frames are united the axle bearings can be soldered in, with the drill/piece of bar through the bearings to keep them exactly in line. 145°C solder makes this operation very straightforward as less heat is needed to get the solder to flow right round the bearing. If the bearing hole is a slightly slack fit it will allow the solder to flow right round and centre the bearing in the hole. You'll probably need to file back the portion of the bearing inside the frames on the driven axle to clear the motor mount or gearbox. Lastly, run the 1/8" drill, or better still, a 1/8" parallel reamer through the bearings to remove any burrs. A larger drill (about 5mm) used to bevel off the bearing hole at the front will ease axle entry and to provide an oil retaining ring.

Now assemble the coupling rods, which are in two parts, overlapping on the centre crankpins (see diagram). Even on a rigid chassis, two-part rods give freer running and easier negotiation of curves - one reason modern RTR uses multi-part rods. The rods are sized for Markits crankpins; for use with pin systems using separate bearings (Gibson, Sharman, Ultrascale), they will need to be opened out to suit. The rods should fit the crankpins with a slight float of 2-5thou.

The wheels can now be fitted and quartered and the rods installed. Don't forget to mount the drive train components on the driven axle, which we suggest will be the rear one. Pick-ups can be mounted to the centre spacer; the test model used a PCB block screwed in place with two 10BA screws and nuts, on which were mounted two rigid busbars of 0.9mm brass wire. Individual wipers of 0.3mm brass wire were then soldered in place to contact the edges of the wheel flanges. Short pieces of sleeving stripped from fine flex slipped onto the pick-ups before final shaping help to avoid shorts where pick-ups are close to springs, etc. Test-run and fettle the chassis until you are satisfied with it.

Finally, assemble and fit the brake gear as in the diagram. The shoes are assembled to the hangers with a piece of 0.7mm wire to make the pin; to do this drill a 0.7mm hole in a scrap piece of wood, push a short length of wire into it, then thread the hanger and shoe - well fluxed - onto this. Align the shoe, hold in place with a suitable probe (scriber) and touch the edge of the shoes with the iron carrying a trace of solder to lock all the bits together, then cut the pin off and file and just proud. The top mount is as in the scrap view, and the pull-rods locate on the cross shafts just inside the frames. The brake shaft threads through the brackets as shown, with the pull-rod cranks just inside the frames (but outside the rods) and the actuating crank offset to the nearside.

Body modifications

You have a choice of three types of sprung buffers: order code 4904 parallel (first 20 built); 4911 tapered (all other NER/LNER builds); or 4909 LNER Group Standard (BR batch, plus fitted at random to earlier locos from 1931 onwards).

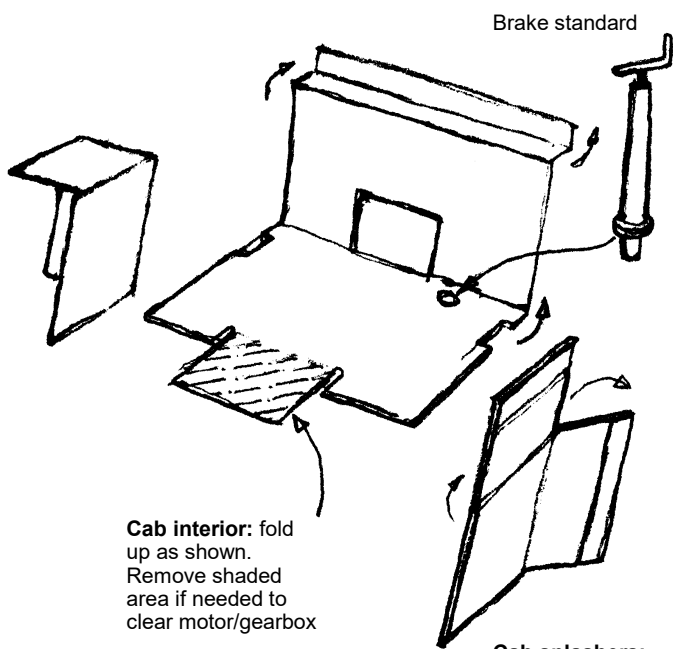
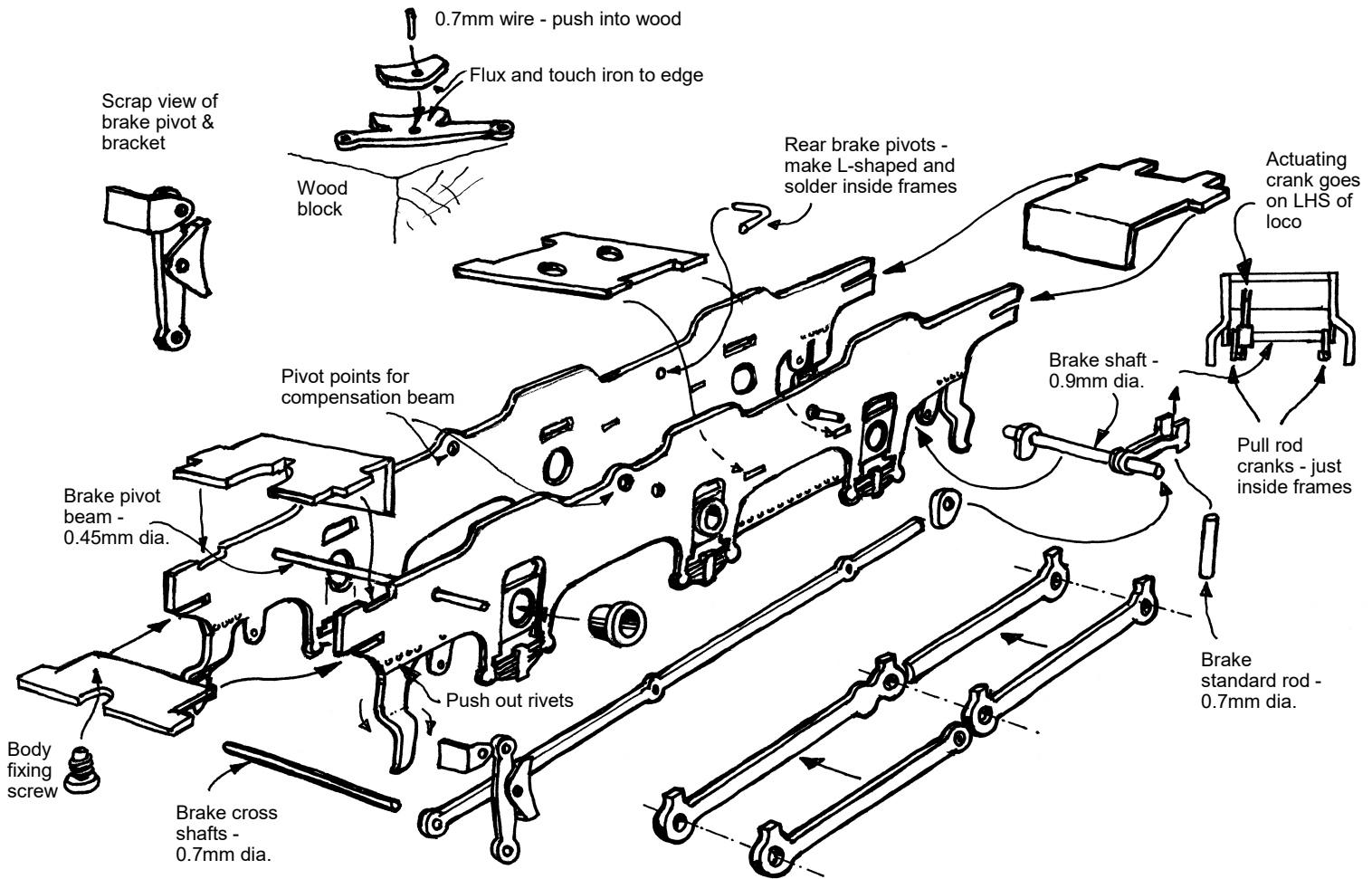
Cut away the original buffers and file the bufferbeams flat. Attach the etched bufferbeam overlays with epoxy or superglue, and drill out the buffer mounting holes to match

the etching. Make up the sprung buffers as in the instructions accompanying them, and fit with superglue or solder.

The wooden boiler bottom slides into place; you can add extra lead above it, and also in the side tanks, to replace

the weight of the Mainline mechanism.

Lastly, the cab interior folds up as shown and locates into the body moulding. Depending upon the drive train, part of the floor may need to be removed - there are half-etched guides to assist this.



Cab splashes:
fold up as shown.
Trim to half-etched
guides for EM/P4.
Locate rear edge to
clear cab doorway

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