

Class 504 Preservation Society

Subject: Restoration plan for trailer car M77172 and power car M65451

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Main aim: The Class 504 Preservation Society (C504PS) aim to restore the sole surviving 504 EMU to a fully operational standard. Restoration started in November 2015 and has mainly focused on clearing and cleaning the interior, refitting several broken windows, removing graffiti, cleaning and painting the sole bars, bogies and under frames of the trailer car. Work has also started on the bodywork, rubbing down, filling and priming. In October 2016 the unit was moved from its original location to a more accessible location to enable further works to progress. We aim to have work completed on the trailer car by the end of June 2018. Work on the power car will hopefully be completed by Mid 2019 in time for the units 60th Birthday. With help as required from the ELR with regards to some time working under cover we feel these timeframes should be achievable.

Restoration plan M77172: The following work is outstanding on the trailer car:

- Continuation of bodywork repairs, rubbing down, repairing, de-rusting, filling, priming and painting **(see footnote 1)**
- Finish off under frame cleaning and painting
- Using relevant working platforms and safety procedures, rub down, repair, prime and paint the exterior roof, paying attention to any damaged gutters **(see footnote 1)**
- Rub down and repair as necessary the front of the unit, prime and paint
- Using wire brush, remove all rust from metal pipe work such as air pipes, inspect, repair as necessary, clean, prime and paint **(see footnote 2)**
- Inspect all brake rigging, air tanks and any other under body equipment. Repair and paint as necessary **(see footnote 2)**
- Replace all wooden side steps
- Check operation of all slam doors and rework as necessary
- Replace missing grab handles on both sides of the unit
- Check and repair/replace all exterior rubber air pipes
- Check operation of and repaint buckeye couplings and buffers/rubbing plate
- Replace damaged wiper arms and blades
- Repair/replace as necessary any water damaged cab equipment (switch gear, gauges etc.) replace any suspect wiring/connectors/electrical contactors, relays etc.
- Finish off any wiring that may be necessary
- Continue cleaning the interior. Deep cleaning seats that are still in a acceptable condition, and replacing any damaged seat material
- Replacement of damaged/missing interior plywood panels
- Refitting all interior roof panels and light fittings with correct spec panels and fittings
- Rub down and repaint cab interior, check and repair cab seats as necessary. Replace destination blind and mechanism
- Source and fit centre window blind and mechanism
- Replace any damaged cab and saloon flooring
- Replace rotten timbers on secondman side cab windows and rebuild as necessary
- Replace any missing luggage racks in the passenger saloons

- Check operation of all drop windows and clean all windows on the inside
- Repair/replace badly damaged cab door on drivers side. Assess the condition of the secondman side cab door and repair as necessary

Restoration plan M65451: The following work is outstanding on the power car:

- Replacement of one damaged window
- Replace any rotten window seals
- Replacement of any damaged exterior body panels and rotten timbers
- Rub down all paintwork, fill, prepare and paint both sides
- Using relevant working platforms and safety procedures, rub down, repair, prime and paint the exterior roof, paying attention to any damaged gutters
- Rub down and repair as necessary the front of the unit, prime and paint
- Clean, prime and paint all accessible bogie equipment and frames
- Clean, prime and paint sole bar and under frame
- Using wire brush, remove all rust from metal pipe work such as air pipes, inspect, repair as necessary, clean, prime and paint **(see footnote 2)**
- Inspect all brake rigging, air tanks and any other under body equipment. Repair and paint as necessary **(see footnote 2)**
- Remove compressor, assess and repair compressor and motor as necessary. Clean and repaint
- Replace all wooden side steps
- Check operation of all slam doors and rework as necessary
- Replace missing grab handles on both sides of the unit
- Check and repair/replace all exterior rubber air pipes
- Check operation of and repaint buckeye couplings and buffers/rubbing plate
- Replace damaged wiper arms and blades
- Repair/replace as necessary any water damaged or missing cab equipment (switch gear, gauges etc.) replace any suspect wiring/connectors/electrical contactors, relays etc.
- Continue cleaning the interior. Deep cleaning seats that are still in a acceptable condition, and replacing any damaged seat material
- Replace missing seats with spares from the LMS coach, replacing material as required
- Replacement of damaged/missing interior plywood panels
- Refitting all interior roof panels and light fittings with correct spec panels and fittings
- Rub down and repaint cab interior, check and repair cab seats as necessary. Replace destination blind and mechanism
- Source and fit centre window blind and mechanism
- Replace any damaged cab and saloon flooring
- Replace any missing luggage racks in the passenger saloons
- Check operation of all drop windows and clean all windows on the inside
- Repair/replace badly damaged guards doors on both sides
- Repaint interior of guards compartment. Check and repair switch gear and other components in guards compartment
- Finish off any wiring that may be necessary
- Check/clean all switch gear/relays/contactors etc in electrical cubicle
- Replace all batteries
- Test all systems (electrical/air etc)

Footnote 1: In the early part of 2018 (March/April) I would like to request a minimum of 2 weeks shed space to enable work to be carried out on the roof and also to have a small amount of welding work carried out (I will source relevant welding person from my ELR contacts). This will be for the trailer car only

Footnote 2: We aim to have both units lifted at some point. This will greatly facilitate the cleaning and inspection of the brake gear and other bogie equipment and will also give access to parts of the chassis that would otherwise be inaccessible