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# **RAGSTONE MODELS**

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## **MR/LMS 3250/2950 gallon 'rebuilt' tenders**

Version no: 1.0

Date: September 2014  
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## About this Kit

These two kits cover the three tender tanks rebuilt from Johnson type tenders in 1909 and attached to '378' class 4-4-0's:

MR rebuilt 2950 tender

LMS no. T2968 with no. 386 to 1911, then 4F no. 3835 from 11/1911 to 11/1922

LMS no. T2969 with no. 388 to 1911, then 4F no. 3836 from 11/1911 to 01/1922

In 1924 these two tenders had new Fowler type 3500 gallon tanks fitted and were attached to new 4F's 4047/48 in March 1925

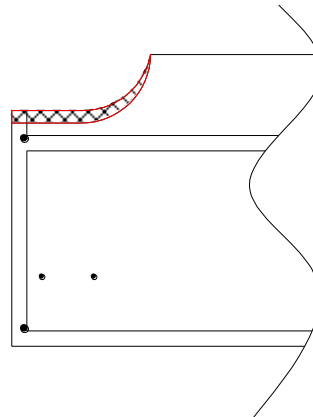
MR rebuilt 3250 tender

LMS no. T1955 with no. 393 to 01/1929 then 3F no. 3435 01/1929 (or 12/31 depending on the source!) -1960 (withdrawn)

## Assembly

1. Assemble chassis as per chassis instructions
2. Remove tank base (101) from fret, clean up and form rivets. Fit 2 8BA nuts over the chassis fixing holes on the top (the side with the rivets showing).

3. If building T1955 as attached to 3435, the front needs modifying slightly as it appears from photos that the height was reduced to (nearly) match the 3F's lower cab sides. A template/jig (138) is provided for this. Line the arms up with the top/end of the side, score a line, and carefully trim as per the diagram. There's a small  $\frac{1}{2}$  etch mark on the inside of the tank side showing the new height of the top edge.



4. Fold tank sides/end (103), for T2968/9, form front using beading strips (118) and footplate (106) as a guide. Fit front Beading strips (118). Note for T1955: there is slightly wider  $\frac{1}{2}$  etch at one end to fit over the upright beading of the side. Fit rear beading (116) and top beading strip (117). Add rivet overlays (112) to inside front edge of sides (T1955 only). Fit completed sides/end to tank base
5. Fold and fit lamp irons (128/129) to positions marked on tank base/rear
6. Form inner tank top (102) using suitable size formers so that it matches the shape of the top of the sides, it may help to fold ONE side to use as a guide, folding the second side and back once the shape is correct and the sides fit neatly under the top. (note: once formed the front edge of the top should line up exactly with the ends of the sides – use the coal plate front (104) to check this). Fold down rear steps and check that it fits snugly between the sides, a **gentle** squeeze in a vice at the top rear can help to ensure the fold are fully formed in this area with the sides tight against the rear plate. If preferred, separate rear steps (127) are provided, these fit to the rear of the outside of the tank

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7. Form rivets on divider plate (105), add beading strip (119) to top edge and rivet angle (137) under beading strip. Fit to tank top with the rivets (not beading strip) facing to the rear
  8. Fold front footplate (106), fold and add support angle (107) to slots in 106
  9. Form rivet on toolbox (108) and fold to shape. Add wire handrail to holes in top from 0.7mm wire
  10. Fit beading (111) to front plate (104), add rivet angle (137f) under beading strip, then fold and form front plate to shape (the bend is approx. 3mm radius), using tool box as a guide – the toolbox is flush with the front plate, hides the half etch bend lines. When fitted to the front of the tank, the top edge of the plate should match the rear divider plate on the tank top. Form rivets on front plate and add beading strip (119), then fix toolbox in place. Form rivets and add locker doors (109 & 110). The hinges are at the bottom, with the small clasp folded over on to the top. Fit two fire iron restraints from 0.7mm wire to the two holes in the front plate. Fit brackets (113) to the rear over the rivet impressions. Rivet and fit water valves to the two holes in the lower part of the front plate. Add handles from 0.7mm wire.
  11. Some tenders had blanking plates (115) fitted to the outer edge (note ½ etch on rear for position) but it's not clear if these tenders were fitted. Also some tenders had steps (127) on the front plate, again it's not clear if/when these were fitted. Fix front footplate assembly to front plate
  12. Pre-curve beading (131) and add to tool support (130) before folding angles on 130. These will then help retain 131 in place whilst soldering. Fit completed assembly to slots in inner tank
  13. Rivet and make up support brackets (133-136), before fitting in place on tank top. Rear brackets (132) don't appear to be fitted to these tenders (they could be inside). Fill unused slots with solder if not fitted
  14. Fit front plate assembly to inner tank and inner tank to sides/ends/base. Fit hand rail knobs to holes at front and handrails from 0.7mm wire to these and holes in tank side (clear the holes with a 0.7mm drill if necessary)
  15. Form rivets (if required), make up steps (121-125) and fit to (underframe) (tank), using slots in tank base to align them. Fit front bracket (120) to the rear of the front steps, over the two rivet holes and make a bracket for the rear step from 0.9mm wire, it fits from the lower single rivet on the back of the steps to between the 2/3rd rivets on the bottom back edge of the frames
  16. Add riveted strip (126) to the underside of the tank base adjacent to top of step (– note at the front it does stick out a bit on T). If preferred, the footsteps can be fitted to the slots in tank base, but on T1955 the small protrusions of the tank mounting brackets will need trimming as in reality the steps fit over them
  17. Add castings to locating holes in tender top/footplate. It is not clear if a water gauge was fitted to these tenders, but if you decide it is appropriate it will fit to the left of the toolbox, just behind the pick up handle

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## Parts List

### Etch

101	Tank base	121	Front step back plate
102	Inner tank/bunker	122	Rear step back plate
103	Tank sides/ends	123	Bottom step
104	Front plate	124	Upper step - front
105	Coal divider	125	Upper step - rear
106	Footplate	126	Step angle strip
107	Footplate support	127	Front plate/rear body step
108	Toolbox	128	Lower lamp irons
109	Toolbox door - middle	129	Upper lamp iron
110	Toolbox door - outer	130	Fire iron support
111	Coal door beading	131	Fire iron support angle strip
112	Rivet strip overlay (3250 only)	132	Support angle - rear
113	Fire iron restraint bracket overlay	133	Support angle - middle
114	Water valve	134	Angle strip for 133
115	Float pivot blanking plate	135	Support angle - front
116	Beading - rear	136	Angle strip for 135
117	Beading - top	137	Divider plate rivet strip
118	Beading - front	138	Water dome base angle
119	Beading - front and divider plates	139	Water valve handle
120	Front step bracket	140	Template - front cut out mod. (3250 only)

### Castings

	<u>White metal</u>		<u>Lost wax brass</u>
74781	Water pick up dome	74256	Water gauge
74782	Water vent		
74783	Water filler		
74785	Brake & scoop standard		