F. Chassis Modifications and Replacement Boiler Shell

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Having removed all the fittings above the motor block it was necessary to provide a substitute set of running boards and modify the lead weight so it could assume its new position at a lower level.

Modifications to the chassis, none of which prevent returning the loco to it's original Mogul configuration, are :

A). A piece of 0".25 x 0".32 styrene glued to the rear of the front boiler support.



B). Two pieces of $\frac{1}{4}$ " angle glued to either side of the motor block, both additions (A & B) providing additional support for the cover plate.



C).A captive nut held in the lower face of a piece of 1/4"square styrene located in the space to the rear of the motor block housing and held in place by two self tapping screws, one from each side of the motor block housing.

D). Removal of material from the front of the cab floor on either side of the boiler location, the exact amount to be removed depends on the position of the front face of the replacement cab..

E). Removal of material from the rear edge of the main chassis frame beneath the cab. This enables the bogie truck to be swivelled round in order to locate the bogie central screw into the nut held in place in the transverse slide mounting.



Material to be removed shown in white

The Chassis Cover Plate / Running Board Base was cut from a sheet of 0.060" styrene with the dimensions being shown on the relevant drawing. The 0.060" wedge ensures the plate fits snugly under the front boiler support.



Cover plate

Resting on support & shim

Cover plate in position on chassis

Before attempting to work on the lead weight I sprayed it with a coat of primer and wore protective gloves whilst handling the weight and vacuumed away any cuttings etc. immediately in order to prevent any health hazard.



Lead weight modifications

The cover plate is secured to the lead weight by a long 1/8" diameter bolt and held in place by a nut beneath the cover plate.

The cover plate, with lead weight attached, is slipped into position beneath the front boiler support and the 1/8" screw dropped into its' hole in the rear of the lead weight and screwed into the captive nut.

The cover plate / running board and lead weight are now held in position awaiting the boiler shell to be slipped into place.



Lead weight & cover plate in position

The boiler shell is cut from a length of domestic rainwater pipe or similar. The internal diameter is not critical though that used here $(2\frac{1}{4})$ should be considered the minimum in order to slip easily over the lead weight.



Boiler shell

Boiler shell located on cover plate



Front location of boiler

With the cover plate and lead weight in place the boiler shell is simply slipped along and over the lead weight, a little gentle easing is required to clear the above board vale gear and there you have it, the hard bit is done !!!

Detailing of both the chassis and boiler were left until much later in the project in order to make progress and prove the basic concept and also to ensure any detail items were not damaged during subsequent construction and testing.

Time to sit back take a rest, give this ugly looking creation a run on your railroad and get ready for the easy bits, building the tender and cab, detailing the boiler, adding any fancy bits and final painting.



Model railroading is fun all the way – so they say !!!

Boiler Shell Details