

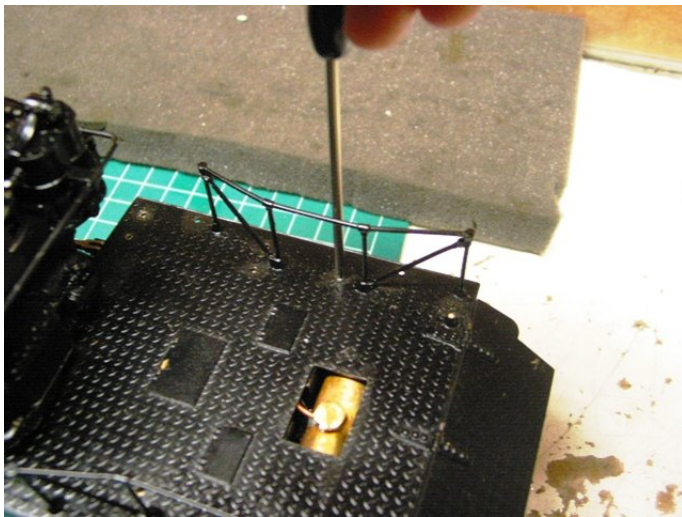
## Accucraft Cab Forward (AC-12) Upgrade: Cross head and guide

Thanks to the work of Gordon Watson, Ryan Bednarik and Jeff Redeker; this DIY sheet can help owners of the Accucraft AC-12 upgrade their fine steam locomotives in areas that can improve performance and/or prevent premature failures.

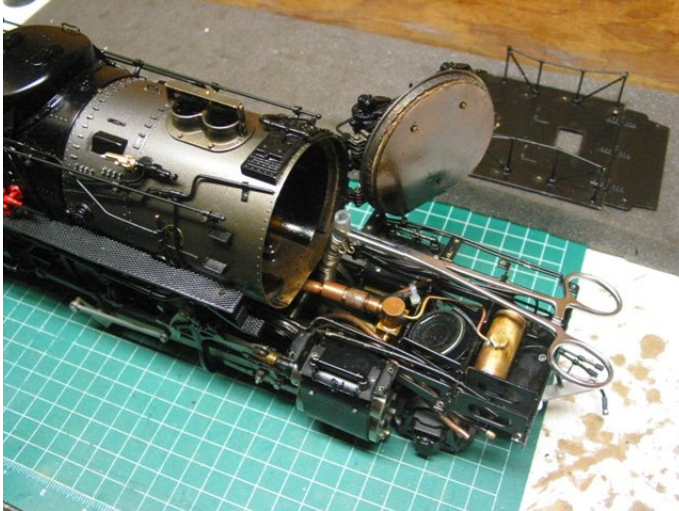
There are several mechanical and structural areas on the Accucraft Cab Forward that could be improved. These improvements would be necessary for the betterment of running characteristics, overall functioning and preventative of premature wear and tear. Based on this premise we offer a series of key areas that will enhance your AC-12 for the long term: cross head and guide, rear engine flex joint, combination levers and suspension.

The main reason for upgrading the cross head is to correct the excess play in the crosshead-main rod connection and the lateral play that ensues.

### Part One: Disassembly (rear engine)



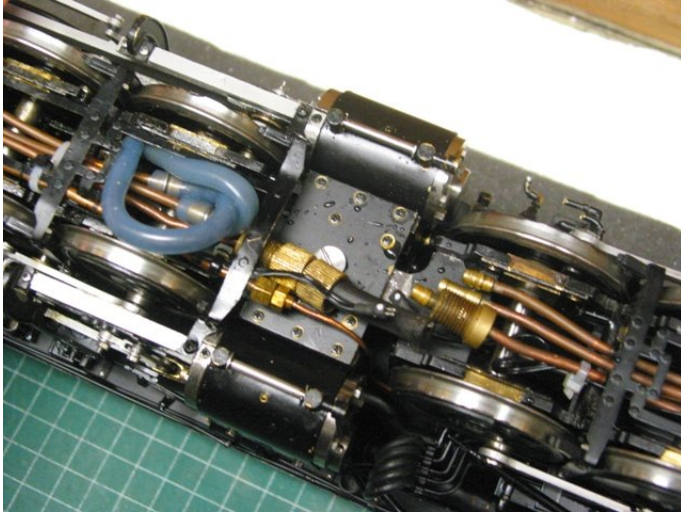
1. Monkey Deck: remove the deck by taking out the 12 screws (8- 1.7 mm (2mm drive) and 4- 2.0 mm (3mm drive) on the top deck surface (please note that the oiler is a newly adapted deadleg lubricator for the rear engine not OEM).



2. Monkey Deck off: access to the rear engine exhaust line (blue flex line with protective metal sleeve) to disconnect. Note: this photo shows new replacement parts (not OEM). The upgraded parts shown are the deadleg lubricator and the mechanical flex joint.



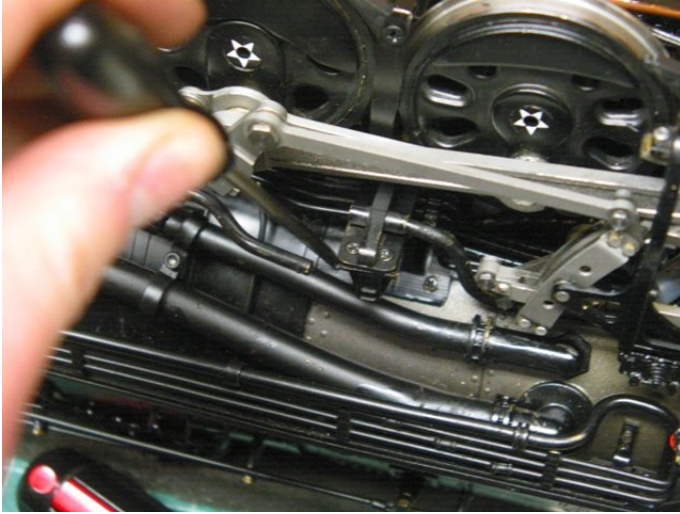
3. Access underside: tape the steam turret hatches shut and then turn the engine over. Then disconnect the flexible lines (Water delivery, Gas delivery and Water return) at the pivot point in the middle of the engine (Between the front and rear engine) and label for easy re-connection.



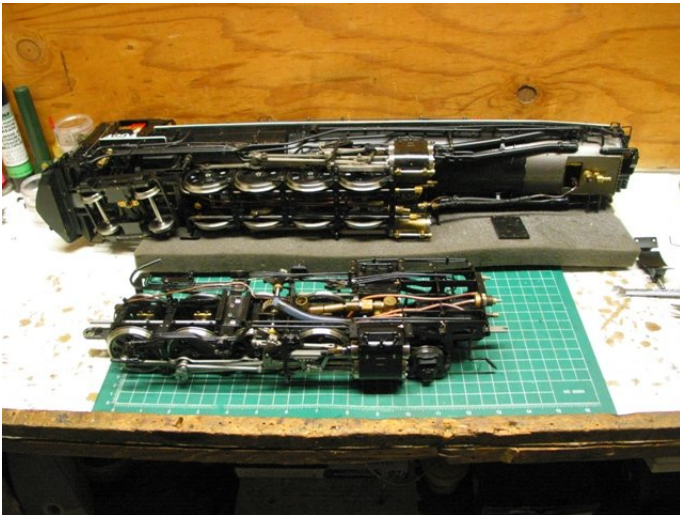
4. Pivot point: there are 10 screws on the pivot (3mm drive, 2mm thread), remove the outer six, then the large inner pivot screw (silver), and finally remove the four inner screws. Remove the plate; slide the inner pivot point backwards to reveal the U-joint for the reverser.



5. Reversing coupling: there are two set screws (1.5 mm allen size). Either one can be loosened allowing the rod to be disconnected from the collar. DO NOT remove the set screw(s).



6. Rear engine: there are 4 screws (1.7 mm) that hold the engine in place. Two screws on each side.
7. Dummy piping: Disconnect the dummy piping at the flex line(rubber) prior to removal of engine.



8. Rear engine: Off the main frame and detached from the support saddle.