

## Aristo-Craft newer 4 axle Diesel Trucks Modification to reduce derailing problems

This may also help older diesels if you are having a problem. The newer trucks are not sprung and are mounted with very little movement allowed to the side or front and back. The basic problem is that the part of the truck that allows the one pair of wheels to pivot to the side are mounted at the center and the rigid axle is mounted at the ends of the frame, this creates a nearly rigid frame the length of the diesel. If it were easy to reverse the trucks this is the first thing I would do. I looked at this and it appears it would require rewiring and lengthening wires to accomplish this complicated by the circuit boards. So I worked on freeing up the trucks for more flexibility. This will improve the tracking and will reduce, but may not totally eliminate derailing.

To start this, remove the body by turning it upside down and removing the 10 screws along both sides of the body and at the pilot. Disconnect wiring plugs from the body to the lower frame. Also disconnect any wiring to the truck

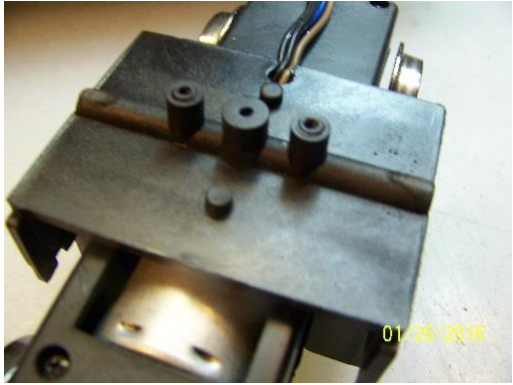


Photo #1 Original truck mount

assemblies, you will need to remove the plastic motor to access these plugs. Then remove the weights from above the truck mounts (be sure not to lose the spacers between the weights and the circuit board). Remove the two screws and washer holding the truck to the frame and remove the trucks from the frame. Then remove the truck mounting bracket from the truck assembly. On one truck bracket remove the long rounded portion (restraints) from the center pivot to the side of the mount (see photo #2), I used a motor tool with a round end file type cutting head to do this, you could also use files. On the other truck remove the restraint pins sticking up on the front and back of the pin (see photo #3). Reassemble the bracket to the truck.



Photo #2 Side restraints removed

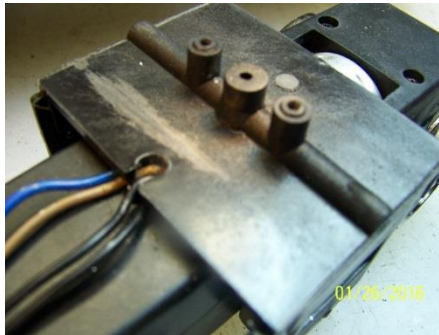


Photo #3 Pin restraints removed

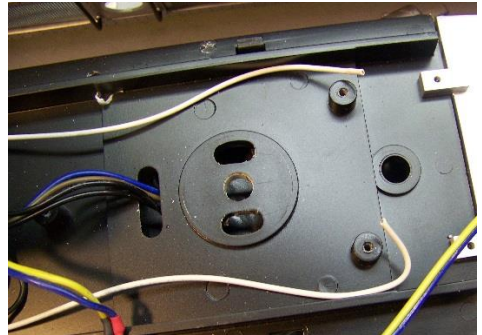


Photo #4 Truck mounting area

Now you need to modify the frame of the chassis. Enlarge the truck pivot holes for both pivot holes with a 19/32" drill (Photo #4). Now you need to enlarge the side curved slots to allow the truck to pivot freely (see photo #4). File these out about 1/64" on both inside and outside of the slots, to check if enough is removed place the truck in position and try flexing and swiveling it to the side and front and back, if it touches the bottom of the chassis on both ends and the side, then you have enough clearance. When you are satisfied with this then reassemble the trucks onto the chassis (I put the one with the side restraints removed on the front, but may not make any difference) and install the mounting screw and washer. Now after tightening the screws for the trucks, loosen the screws about 1/2 turn and check the truck flexibility to front, back and sides. The truck with the side restraints removed should flex freely to the sides, the truck with the pins removed should flex freely to front and back. If necessary back the screw out a little farther. This gives you one truck able to flex side to side and one flexing front to back, a three point suspension. Now reassemble the loco and this will improve the tracking and will reduce, but may not totally eliminate derailing, these locos are very sensitive to track alignments. I run a pair of these around my layout to find any problems, if they do not derail, I know all the others locos will also work. Hope this helps.

See website for other helpful information, [www.mhgrs.com/](http://www.mhgrs.com/) click on the information page.