

OMNICON

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Omnicon Scale Models

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Dear S-Scalers:

Instructions for repowering the Miller Alco switcher using Omnicon Scale Models' RDC components.

Well, here goes the infamous Miller switcher conversion. I really don't have this down to a definite art yet, but my models do run exceptionally well. I've sent you items I haven't charged for, such as wheel sets (40") and insulating bushings. This should give you a leg up in your journey to good performance.

To begin with, I used Overland Alco trucks, available from G & W. I didn't have any original Miller side frames but I'm sure they could be used if the axle ends fit.

Anyway, here goes.

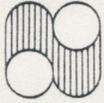
Disassemble the RDC trucks and remove the wheel from each axle. Then carefully remove the gear. Careful heavy thumb, don't damage the gear or lose the small spacer washers. I have modified a small channel lock pliers for this job.

- A. The distance between the RDC axles is too much for the Overland side frames. To correct this, I positioned one gear box over the slightly opened jaws of a vice and tapped lightly with a brass hammer on the exposed transfer axle of the second gear box. If you're careful, the gears will slide enough to shorten the distance to fit the side frame without disassembling the gear boxes. If you wish to be super careful, take it all apart and do the same exercise.

The reason we have gone thru this gear changing hassle is because the side frames I used only accept a shouldered axle. The RDC axles are pointed, otherwise it would only be a matter of changing the 33" wheels for the proper 40" wheels.

After the four gears are removed, carefully inspect them for burrs and clean up with a fine file if necessary. Remove one wheel (40") from the axle and press the RDC washers and gears onto the 40" wheel set axles centering the gear.

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Now, if you use the Overland side frames, you will find the formed brass bolster sets the model much too high off the track. This is solved in two ways.

- A. I use my vertical milling machine to cut the frame down to a thickness of about .050 . This means the bolster center frame is removed. Then I cut out the hole for the gear tower. This hole is as wide as the inside of the cast ribs that hold the body shell in place (about 3/4") and about 9/16" front to back. I start this hole 1" from the end of the frame. Next, ream out the existing king pin hole to accept the shouldered plastic bolster insulator. This insulator comes from our new "F" unit, and is really a neat piece. This is a good way to check the thickness of the frame because the shouldered insulator part should be almost flush to the opposite side when fitted thru the hole.
- B. Because of the large size of the Overland truck bolster, I've found it easy to remove them from the side frames and relocate them under the tabs they were originally screwed to. If this doesn't lower the unit enough, shim with small washers.

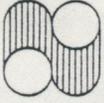
Golly, Agnes the hard part is over. Put the whole thing together and mount the trucks to the frame for a test fit. The shouldered insulator should press fit thru the frame from the bottom.

The second half of the insulator goes on top and if you're using the Overland bolster, the frame can be attached to the truck with a 3mm x 8 screw. The nifty thing about these insulators is, you can place a shoulderless electrical connector between the screw head and the plastic insulator, screw it tight and the truck will still be free to move. If ... the gear tower drive shaft is too close to the king pin hole to get the screw thru, remove the universal connector.

You now have the basic unit ready.

Next, select a double ended can motor and make a mounting bracket to secure it to the frame. Sure, go ahead and mount it with goop if you want. Anyway, keep it low to lessen the angle the universals must work at. Then cut and fit the oversized piston type universal shafts between the motor and the gear tower and the mechanical work is finished.

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The cab and hood parts need clearance holes for the gear boxes and universals.

Make electrical connections between the motor and the solderless connectors under the king pin screws. If the universal coupling touches the screw head, file the head down.

My units run smooth as silk and take very sharp curves.

Good luck, I look forward to hearing from you on this project.

Regards,

Charlie Sandersfeld
President

CDS:ram

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