

# ATHEARN (GENESIS)

# USRA 2-8-2 LIGHT MAKADO

## COW CATCHER

### #36 PILOT COUPLER CONVERSION

#### No. 5® TENDER COUPLER CONVERSION "DROP IN"

1. Remove the dummy coupler, it will easily pull straight out. Remove the hoses next to the coupler pocket. They have press fit pins at the edge of the deck, use a thin blade under the hoses near the pins and carefully lift the hoses up.

2. Enlarge the coupler pocket opening just enough to slip the shank of the #36 coupler through. File the sides and bottom only, do not file the upper lip of the pocket. The sides will be very thin. Slip the coupler into the pocket and check that it moves freely. Some modelers filed the shank of the coupler to get it to slip through the opening, however, we do not recommend this.

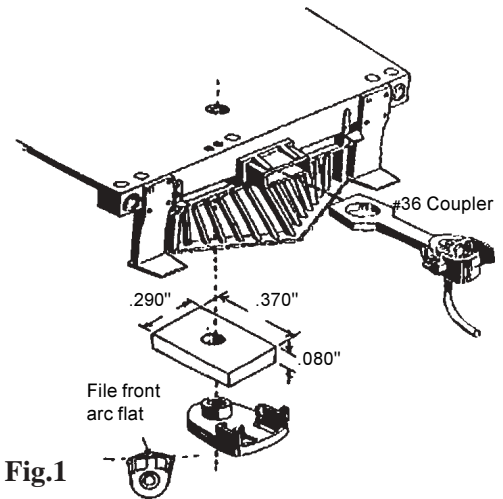
3. Make a shim to fit behind the opening and between the frame rails. Use .080" thick styrene stock .370" long and .290" wide. Place it between the rails, slide it forward, and cement it in place with a liquid styrene cement. The shim should be the same height as the upper lip of the pocket.

4. Assemble the spring side of the draft gear box and file the front arch flat where it will fit closer to the back of the pocket opening. Slide the coupler into the pocket and fit the draft gear box over the shank of the coupler. Make sure the wire points or arms of the centering spring straddle the shank and the box is on the shim and against the back of the pocket, the closer the better. Hold assembly in place and flip the coupler back and forth to check centering action and clearance. Center the draft gear box and mark the shim through the center hole of the box. Drill and tap a hole through the shim and pilot deck for a 2-56 screw.

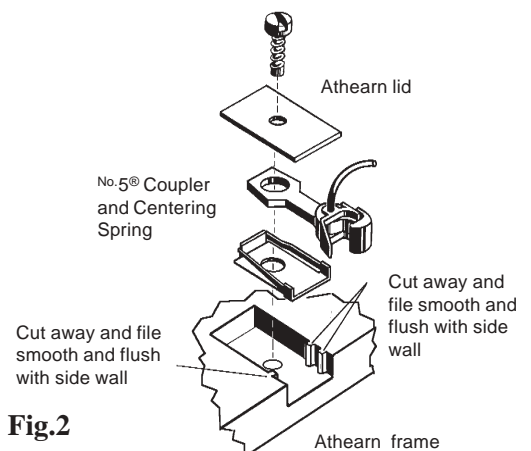
5. Reassemble the coupler as above and secure with a plastic 2-56 screw. Check the clearance of the pilot wheels over the draft gear box and screw head, sometimes there's enough clearance and sometimes there's not. You can file the plastic screw head down quite a bit and if this is not enough, and as a last resort, you may have to carefully ream a countersink in the draft gear box for a flat head screw. Trim the screw off flush with the upper deck surface or use a screw of appropriate length.

6. Reattach the hoses in the two holes to the left of the coupler.

7. Check for correct coupler height, function, and clearance and make any adjustments necessary.



**Fig.1**  
**#36 Installation**



**Fig.2**  
**No.5® Installation**