

# RIVAROSSO (POST 1993)

# 4-6-4 HUDSON

## #38 TENDER COUPLER CONVERSION

Remove the original coupler and save the screw and thin washer. You can remove the truck for better access to the coupler area, or you can remove the rear wheelset, although not necessary it will give you more area to work. If you remove the truck be careful not to lose the screw, spring, or metal wiper.

Make a mounting platform from .060" thick styrene shim stock .480" x .220" (the distance from the inside of the end of the tender to the farthest part of the coupler mounting post and as wide as the mounting post.) See the illustrations. Measure along the centerline .110" in from one end of the shim (platform) and mark it for a hole. Before drilling, place it on the post and check if the holes will line up so the front edge of the platform will be flush against the inside of the end of the tender, if not, make the necessary adjustment. This may or may not be needed due to the variations in the manufacturing process. After you achieved the correct hole location use a #43 drill (2-56 clearance drill) and drill a hole through the platform. Again place the platform on the post and secure it with the original screw and washer. The platform surface should be flush with the bottom of the back edge of the tender.

Assemble the #38 coupler with the spring side of the draft gearbox on the bottom of the coupler and without a lid on the top. Place the coupler onto the platform where the two side posts (where the lid would fit) of the draft gear box hang over the edge of the back plate of the tender. Put a rubber band around the coupler and tender body to hold it in place. Place the tender on your track and check it for the correct coupler height, use our #205 coupler height gauge. There may be slight height variations, again due to the manufacturing process. If the coupler is too low carefully file a small amount from the top of the post and an equal amount from the bottom edge of the end of the tender where the platform touches. If the coupler is too high put the thin lid on the draft gear box and, if needed, additional shims under the box to lower it to the correct height. If the difference in coupler height is more than .050" in either direction use the next offset coupler, a #37 to raise it or a #32 to lower it. When you achieve the correct coupler height mark the hole along the center line of the platform, this should be about .250" (1/4") from the end of the tender. Use a #50 drill (2-56 tap drill) and drill and tap a hole for a 2-56 screw.

Secure the coupler to the platform with a 2-56 screw of appropriate length. If the screw is too long it will push against the floor and lift the platform and lower the coupler height. You can remove the platform with the coupler attached and trim a plastic screw flush to the bottom of the platform.

If your Hudson model is a streamline locomotive then you may want your coupling distance to be closer. If so, be sure to check for the swing clearance of the couplers, this may depend on the radius of track you have. You could then use the shorter shank #33 coupler.

