

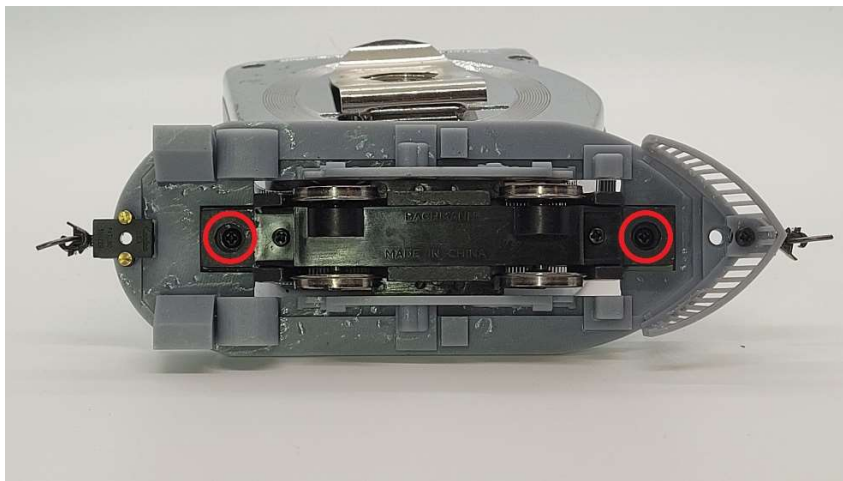
## On30 21 ft McKen instructions

### Using Bachmann On30 trolley mechanism

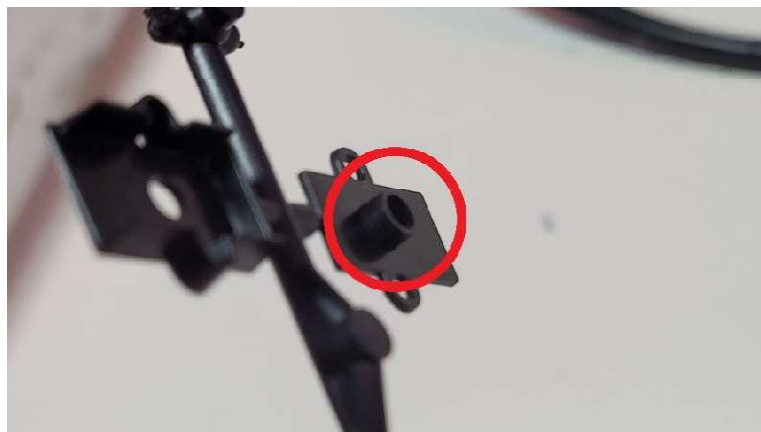
This is a really simple conversion.

- Check the fit of the trolley mechanism in the chassis and drill and tap the mounting holes. I used 2-56 ¼" long pan head screws, but the original Bachmann screws will should work too.
- Drill and tap the body for the chassis and coupler mounting screws. I used 2-56 ½" long flat head screws for the chassis to the body, but 4-40 or a metric equivalent will also work. The front coupler pocket is designed for a whisker style coupler and a ¼" long pan head 2-56 mounting screw. You may need to cut the center sleeve off a standard Kadee coupler box and use it as a sleeve around the screw depending on what style coupler you use.
- The rear coupler uses a standard HO Kadee box secured to the chassis with 8-80 screws, small self-tapping screws should work too.

Mounting screw locations



Coupler "sleeve"

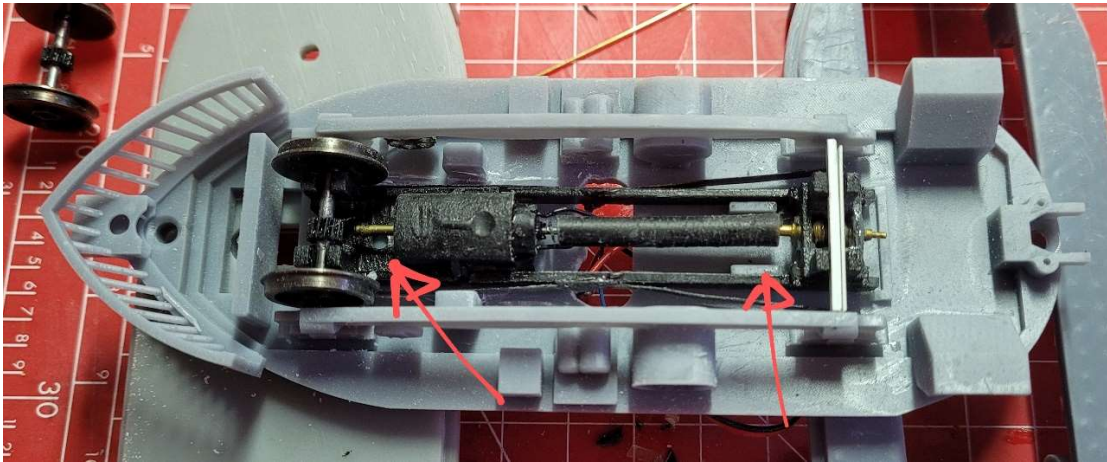


- That's it, all that is left is details and paint.

## Using the Lamber Locomotive Works Stalwart drive

- Review the instructions for the Stalwart and familiarize yourself with how it goes together.
- Before Starting assembly of the Stalwart drill and tap a hole for a 2-56 or 4-40 (or metric equivalent) mounting screw into the motor mount between the motor and the axle. Then place the motor mount in the McKeen chassis and carefully line up the front axle centerline with the chassis journal boxes and mark where to drill the mounting hole in the chassis.

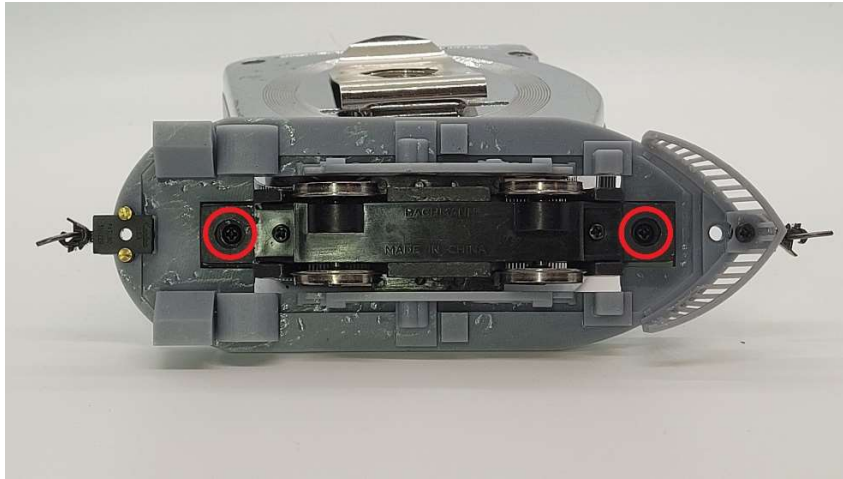
### Stalwart mounting hole and alignment tabs



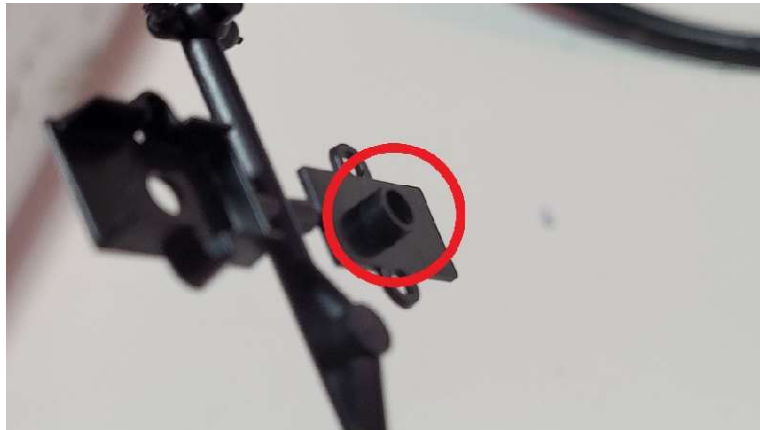
- Assemble the motor, front axle mount and Lexan side mounting plates according to the Lamber Locomotive Works instructions but don't attach the rear axle holder yet.
- Mount the front of the partially assembled Stalwart drive to the McKeen chassis. Then carefully line up the rear axle mount with the McKeen chassis journal boxes. At this point you can either CAREFULLY apply some ACC to tack the rear axle holder to the Lexan mounting plates or mark and measure the location of the rear axle box (the axles center-to-center should be 2.6" or 66mm). Finish assembly of the Stalwart drive out of the chassis.
- When finished the Stalwart drive should be held in place in the front with the mounting screw and aligned in the rear by the blocks on the chassis.
- Alternatively, you can just assemble the Stalwart chassis with the wheels spaced at 2.6" or 66 mm apart and glue the assembled Stalwart to the McKeen chassis.
- Tap the body for the chassis and coupler mounting screws. I used 2-56 1/2" long flat head screws for the chassis to body, but 4-40 or a metric equivalent will also work also. The front coupler pocket is designed for a whisker style coupler and a 1/4" long pan head 2-56 mounting screw. You may need to cut the center sleeve off a standard Kadee coupler box and use it as a sleeve around the screw depending on what style coupler you use.
- The rear coupler uses a standard HO Kadee box secured to the chassis with 8-80 screws, small self-tapping screws should work too.

(continued)

## Mounting screw locations



## Coupler "sleeve"



- The square hole in the front of the chassis fits a Tony's Train Exchange "TDS SuperSonic Mini 15 x 11 mm Speaker Enclosure" for a sugar cube speaker.
- You may need to add some weight to the chassis for best performance.
- That's it, all that is left is details and paint.