

PIKO 35 foot Flatcar CamPac Box™ Install Guide

Ted Doskaris, 12/16/2025

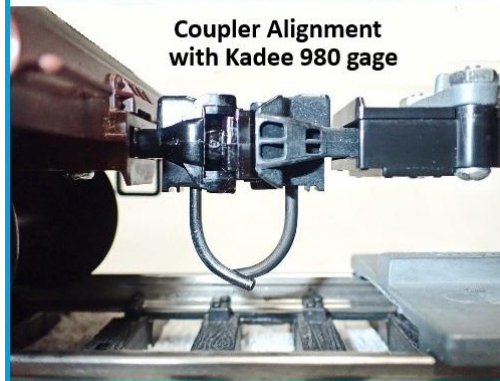
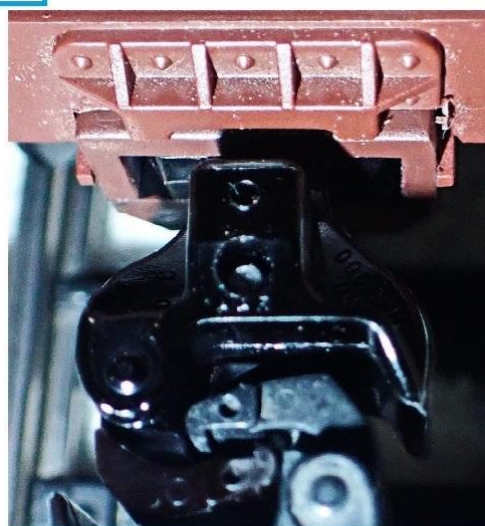


Factory car with plastic wheels and truck mounted Hook & Loop couplers

Car with body mount CamPac Boxes™ fitted with Kadee center set couplers from 907 kit and USA Trains metal wheels



Draft Gear Detail



Coupler Alignment with Kadee 980 gage



Painted CamPac Boxes



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To enhance the car's appearance and operational stability in a train on 8 foot or grater diameter curves, body mount 3-D printed CamPac Boxes™ fitted with Kadee* centerset (no offset) "G" scale AAR E type couplers from the 907 kit are employed along with replacing the trucks' plastic wheels with heaver USA Trains metal wheels. If choosing to use the car in 1/32 scale environment, the Kadee 1907 kit's #1 scale coupler could be fitted in the CamPac Boxes in place of the Kadee kit's 907 where described in this guide. (Note: Coupler in 1907 kit is described as centerset, but it has a downward offset to conform with #1 scale coupler railhead height.)

Step 1 Car Preparation

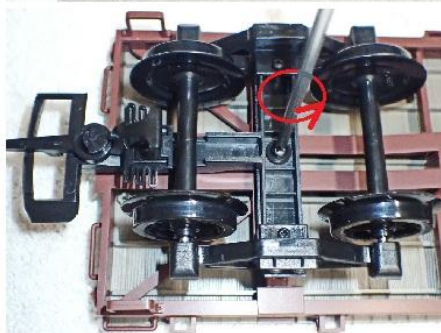
Prepare car frame to be worked on and prevent damage by removing brake wheel, trucks, and foot stirrups, etc. as shown below



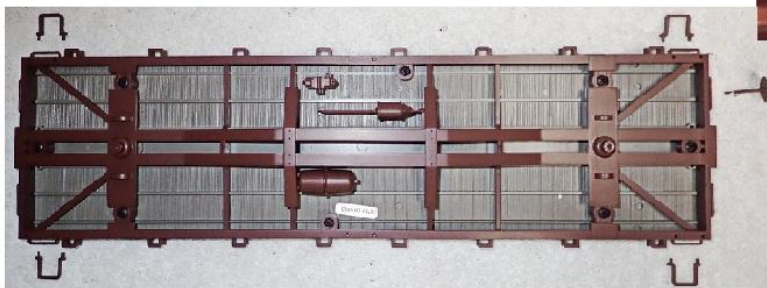
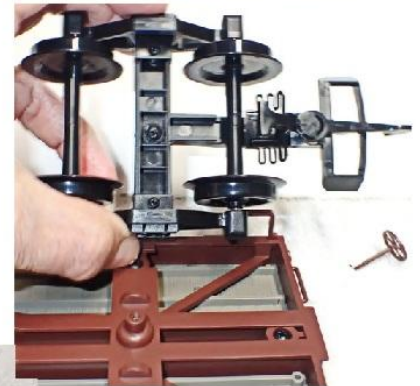
Extract brake wheel with pressed in shaft



Place car on its back - floor down



Unfasten and remove both trucks



Extract 4 pressed in foot stirrups



Remove bolster & draft gear top "T plate" at both ends of car
Remove all 8 frame screws



Frame
Floor



Other end same



Floor deck
T Plate



Lift away frame from floor

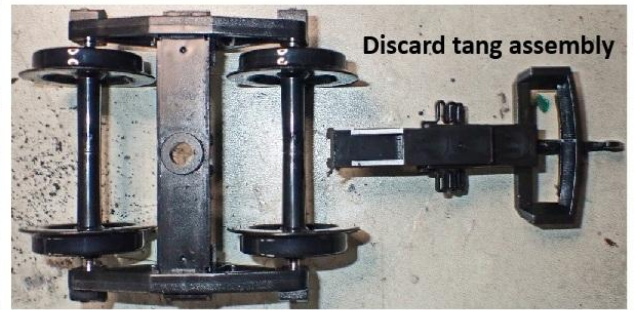
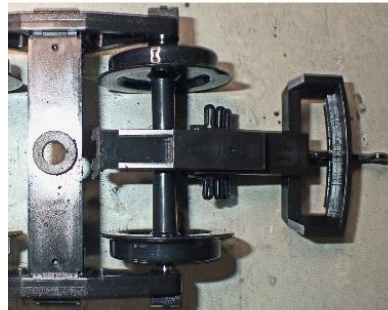
Cut off the PIKO 35 foot flatcar trucks' Hook & Loop coupler tang & replace plastic wheels with USA Trains metal wheels - example method shown below

Step2

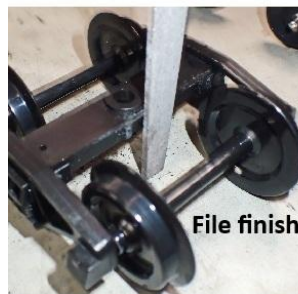
Note: The installer is to obtain two sets of USA Trains black metal wheels , P/N R2093



Example Razor Saw used to cut off tang



Discard tang assembly



File finish



Un-screw one sideframe



4 wheels = 2 sets

Remove one sideframe, and take out plastic wheels
One set of USAT R2093 black metal wheels required for each truck

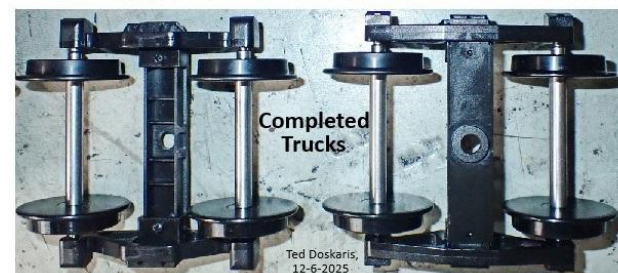


Discard plastic wheels



Re-assemble with metal wheels

Metal wheels provide much needed low center of gravity to car



Completed Trucks

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Factory truck weight

Metal wheels

0.11 lb

0.39 lb

Step 3

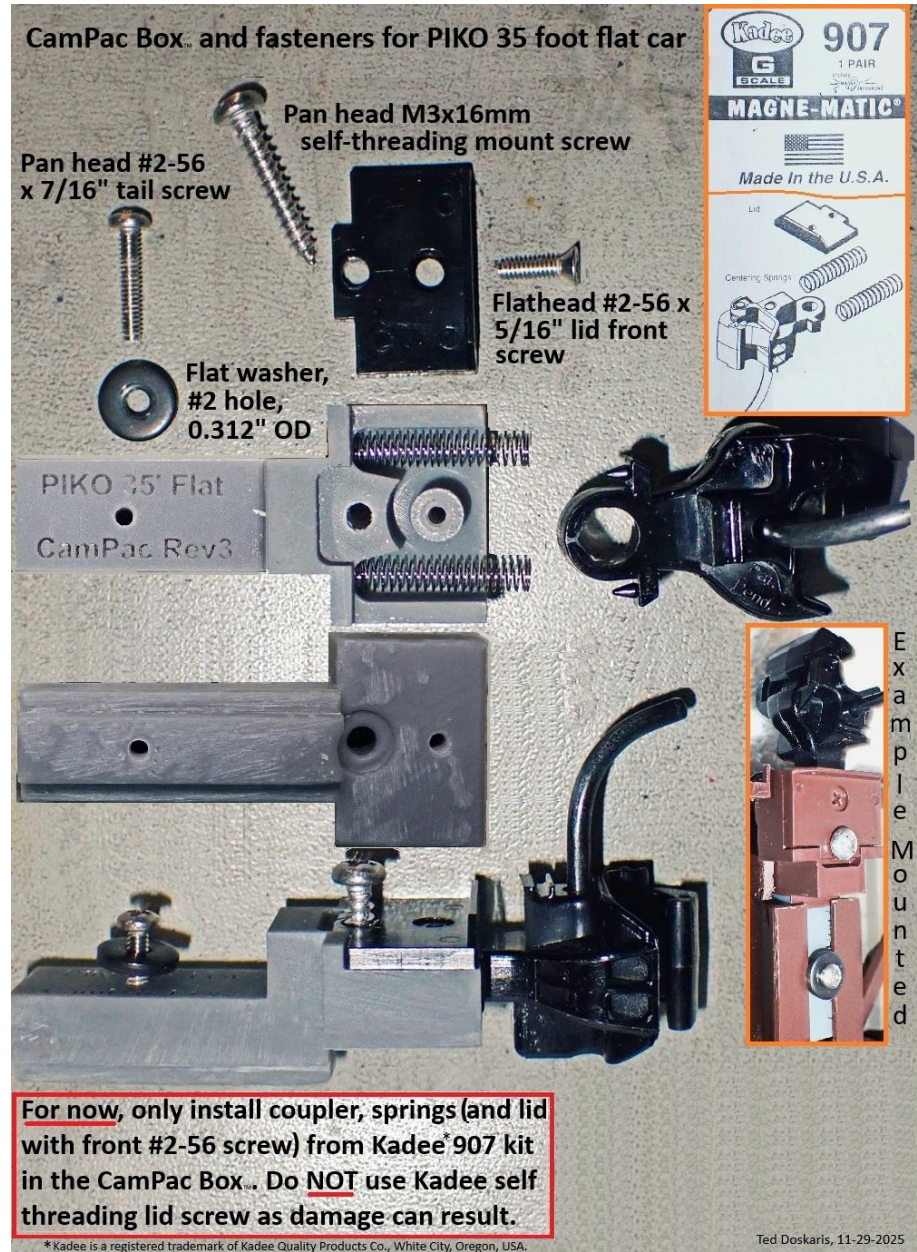
Prepare CamPac Boxes as illustrated

Note1 :

The installer is to obtain the Kadee 907 kit

Note2:

For 1/32 scale environment, the #1 scale Kadee 1907 kit could be substituted; however, coupler tail hole may need to be enlarged to 0.200 inch (5mm) diameter to fit over CamPac box post



The CamPac Boxes can be optionally painted prior to installation

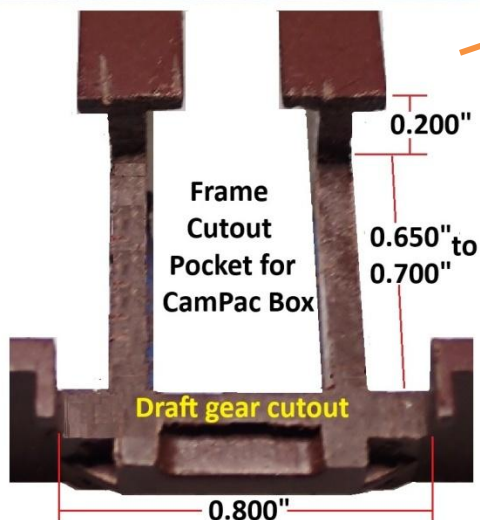
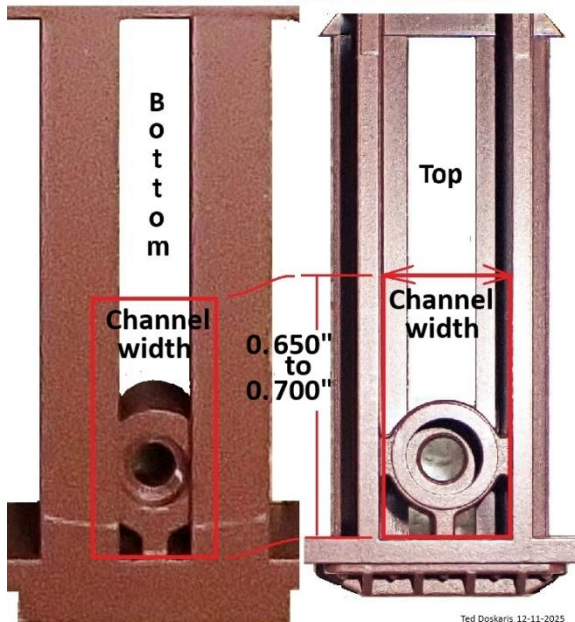


Step 4

Cutout Draft gear and frame to accept CamPac Box as illustrated - both ends of car same.
Using a milling machine and square broaching tool with proper speed and feed for plastic work would be the best method for the cutout process; however, the process can be done by hand using a drill, razor saw and files - albeit time consuming and tedious.

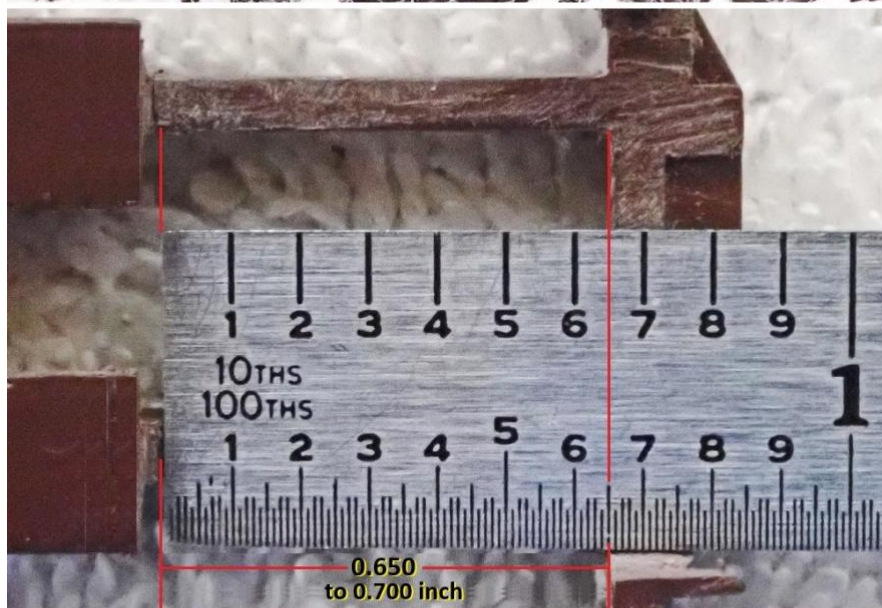
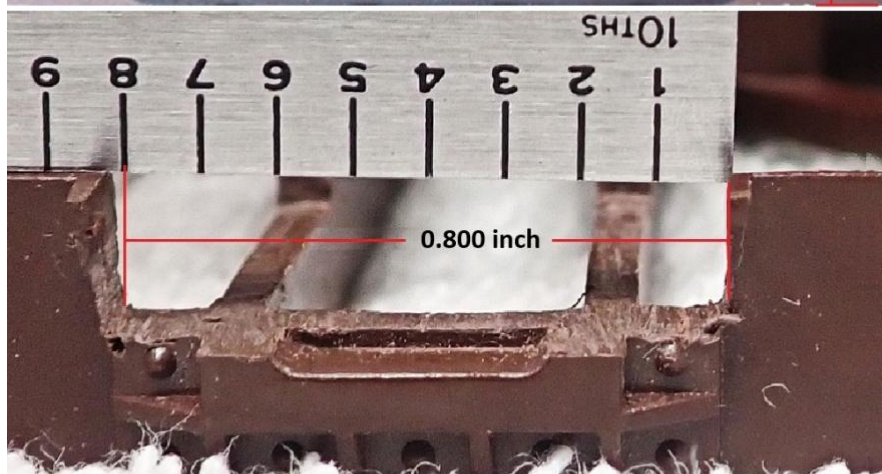
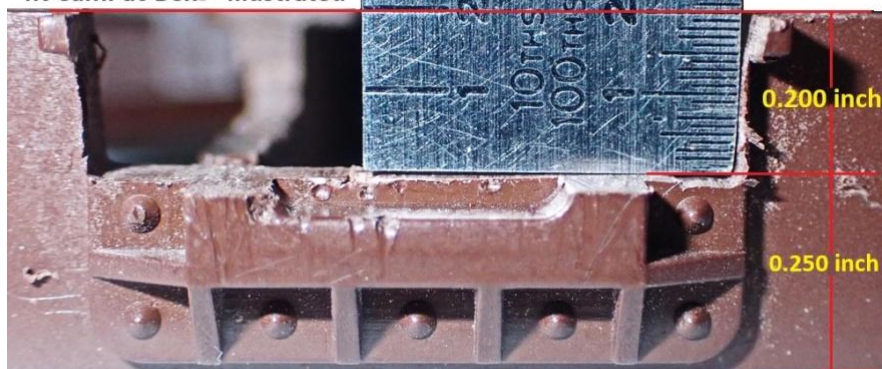
If using milling machine, skip to step 6

Frame Channel area to be cutout



5 of 9

PIKO 35 foot flatcar Draft
Gear cutout dimensions to
fit CamPac Box - Illustrated

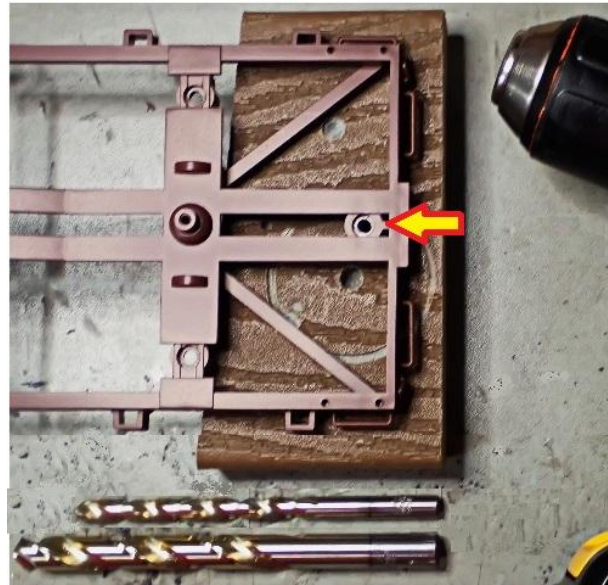


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Example method to modify frame for installing CamPac Boxes™ - PART 1

Step 5A

When using hand tools, perform operations as illustrated



Drill out post near end sill at both ends of frame, first using 1/4" then 3/8" bits

Remove left over material as much as possible with side cutters and then using razor saw cut several "teeth" as shown



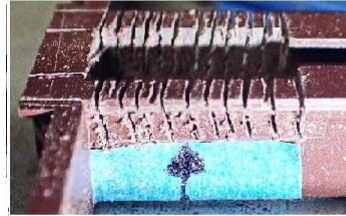
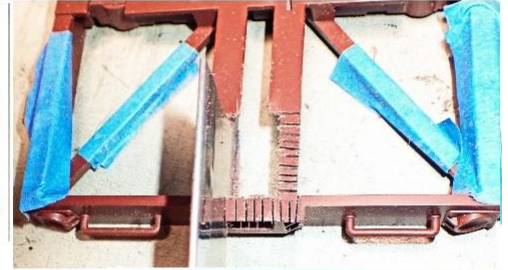
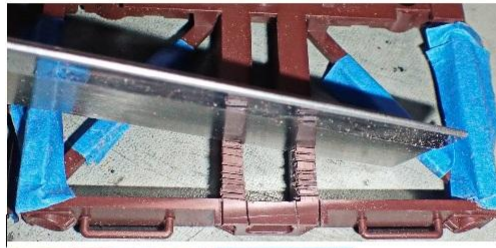
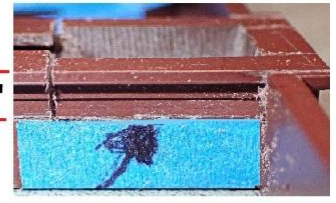
Break off teeth with small needle nose pliers and then file finish

Example method to modify frame for installing CamPac Boxes™ - PART 2

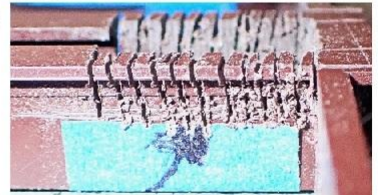
Step 5B

Perform operation when using hand tools as illustrated

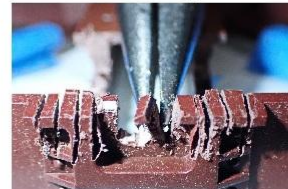
Tape on frame ribs protects when making cuts. Mark with tape as shown for cut depth.



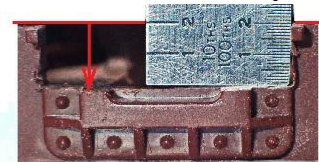
Example razor saw used to make successive cuts to tape line on both sides and both ends of frame



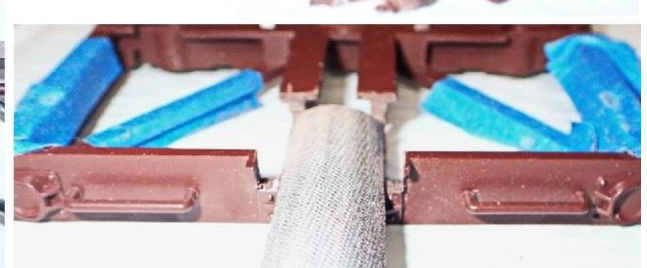
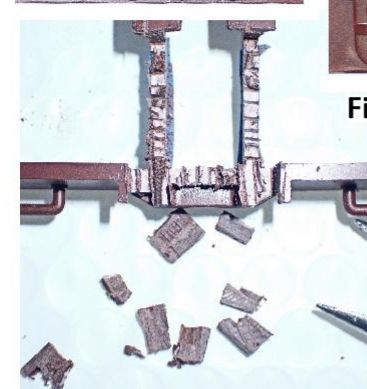
Break off "teeth" with needle nose pliers



Finish to 0.200" depth



File finish teeth nubs



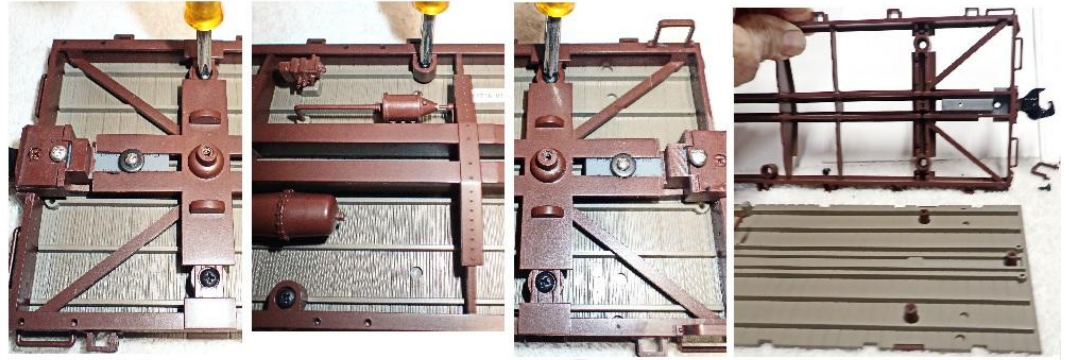
As needed, file sides and square up corners of draft gear opening so CamPac coupler box portion fits there between.



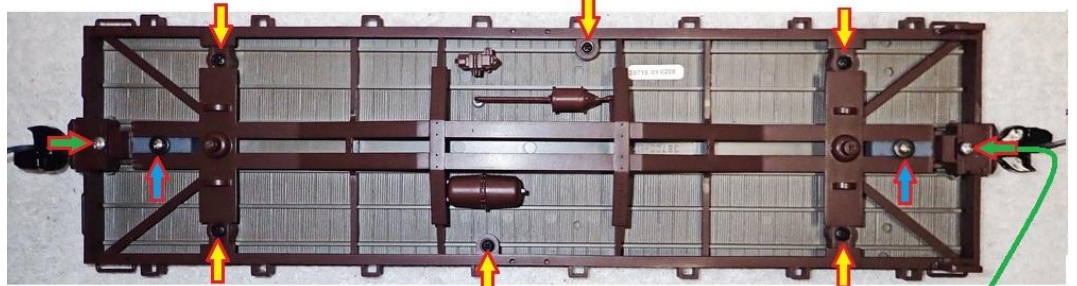
Step 6

Reassemble car as illustrated

Reassemble the PIKO 35 foot flatcar - shown below

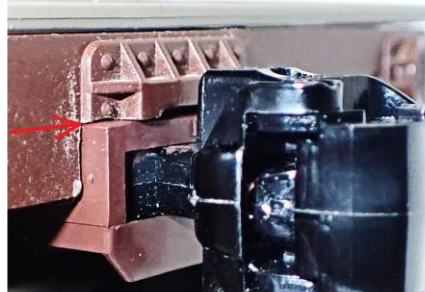
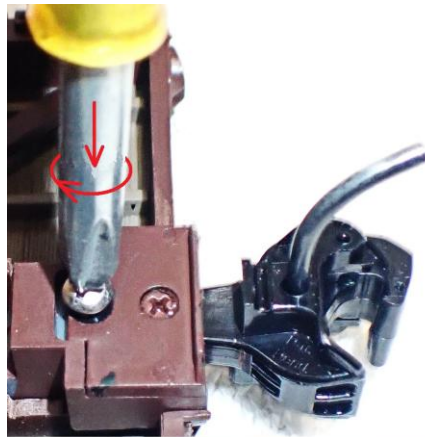


Fasten frame to floor with 3 factory short screws - each side



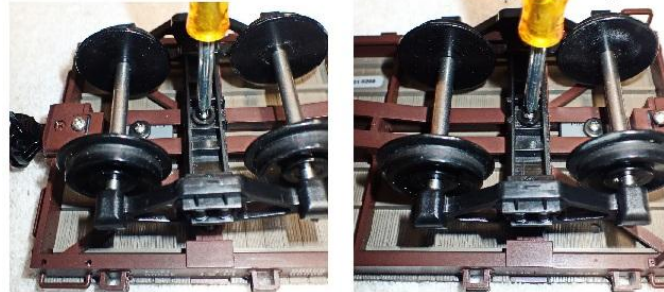
Note:

Affixing the CamPac box so it's fully seated for no air gap with the draft gear detail will likely take some screw driver twisting force whilst pressing down on the screw driver.

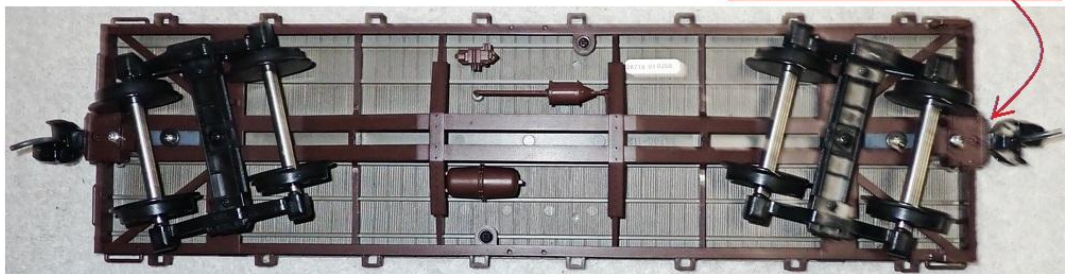
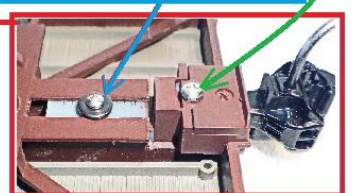


Affix & seat M3x16mm self thread-ing screw through CamPac box lid hole at each end

Mount trucks to frame bolster using factory screws & washers



Fasten CamPac box tail with #2-56x7/16" screw and #2 hole flat washer



Press all 4 foot stirrups into the frame corners

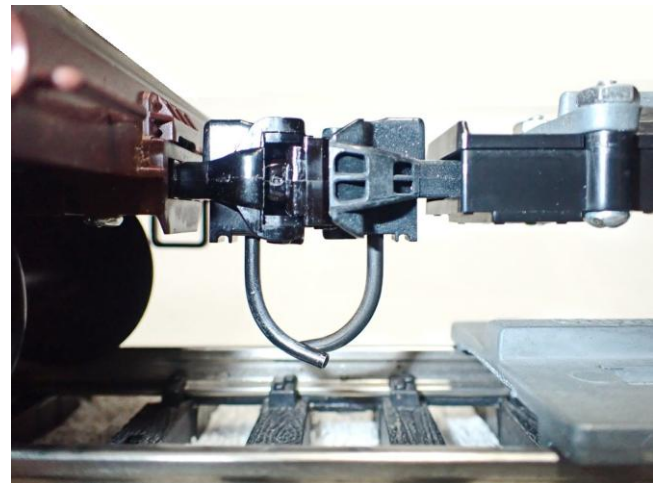
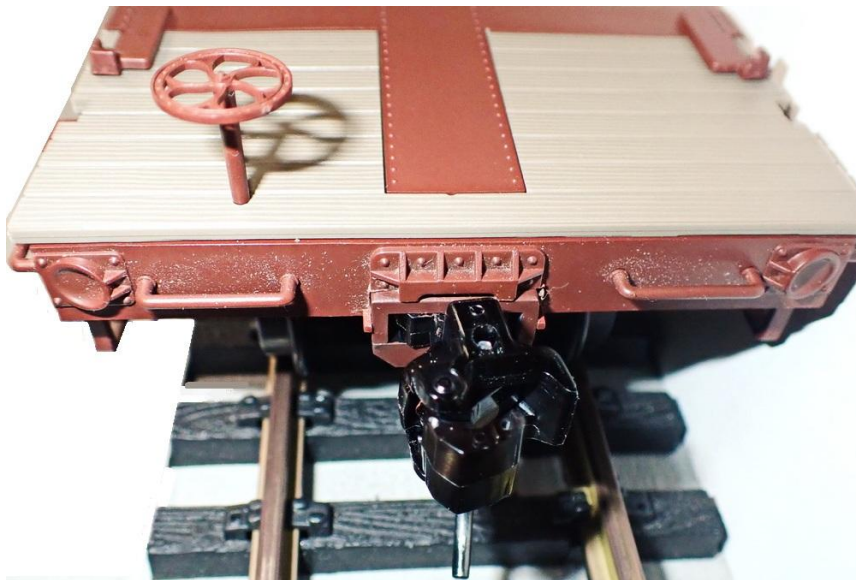


Upright car and press the brake wheel with shaft into the deck



Done!!!

PIKO 35 foot flatcar with metal wheels and body mounted CamPac boxes fitted with Kadee centerset couplers operating on 8 foot diameter track circle



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