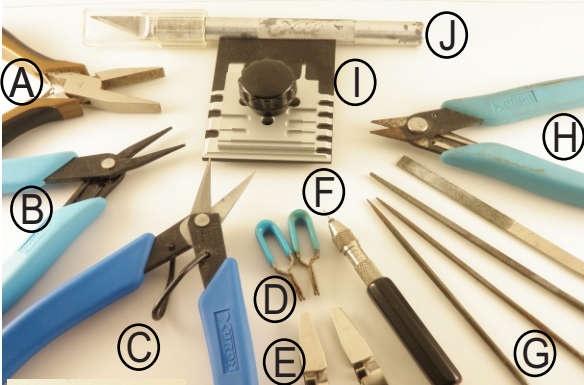


- A- Main Body
- B- Main Ribs
- C- Center Rib Ends
- D- Left And Right End Ribs
- E- Floor
- F- Floor Ends
- G- Under Floor Bracing
- H- Center Bracing
- I- Bolster
- J- Bolster Covers
- K- Air Tank Brackets
- L- Brake Eccentric
- M- Center Ribs
- N- Brake Tower
- O- Brake Platform
- P- Brake Gear Housing
- Q- Brake Wheel
- R- Brake Rod
- S- Ladders & Stirrups
- T- Ladders & Stirrups
- U- Top Cord
- V- Grab Iron Bending Jig
- W- Coupler Spacers



Here in [FIG.1] are some suggested tools and items for assembling this kit.

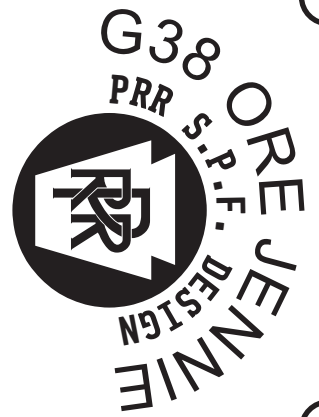
- A - Flat nose non serrated plier found at any local hardware store
- B - Xuron tweezer point pliers
- C - Xuron photo etch shears
- D/E - Various clamps
- F- Pin vice with a #80 drill, # , and 00-90 tap
- G - Assortment of needle files
- H - Xuron micro sheers
- I - Small shop photo etch bending tool www.theshop.com
- J - Exacto Knife

Main Body Assembly

- 1.) Remove A-Main Body and five B-Main Ribs.
- 2.) With bend line up, bend the four very outer edges of the A-Main Body towards you 90 degrees. The outer dashed line shown in [FIG.2] indicates the four places for these bends. Refer to close-up [FIG.2a] and [FIG.2b] note the bend line is just under the outer etched edge.
- 3.) With smooth side up, now bend the four A-Main body sides up to form the Main body. Refer to the inner dashed line in [FIG.2] for where to bend. Refer to [FIG.4] to see finished assembly.
- 4.) With the bend line up, fold the B-Main Ribs along the center bend line away from you until it doubles itself. Repeat this process for each of the B-Main Ribs. Refer to [FIG.3] and [FIG.4]
- 5.) Fasten the B-Main Ribs to the A-Main Body to locations indicated in [FIG.5]. Take notice how the A-Main Body tab slots are staggered; the main ribs must be oriented correctly to match slots. You may have to file or trim the top edges of B-Main Ribs to achieve proper fitment.
- 6.) Remove C-Center Rib Ends and the four D-Left And Right Rib Ends.
- 7.) With the bend line oriented up, fold each C-Center Rib Ends along the center bend line away from you until it doubles. refer to [FIG.6]
- 8.) Attach one C-Center Rib Ends to each end of A-Main Body as shown in [FIG.6] and [FIG.7] note: you may have to file or trim the top edges of C-Center Rib Ends to achieve proper fitment.
- 9.) Next, fasten the D-Left And Right Rib Ends to the slots adjacent to either side of the C-Center Rib Ends Again, it may be necessary to file or trim the top edges of the C-Center Rib Ends to achieve a good fit. Refer to [FIG.6] and [FIG.7]

Floor Assembly [FIG. 8]

- 10.) Start by removing E-Floor and F-Floor Ends
- 11.) With E-Floor bend lines oriented up , bend both sides of E-Floor along etched lines up until a 90 degree angle is achieved. Refer to [FIG. 9]
- 12.) Orient the bend lines up on E-Floor Ends bend the edge with the two small triangles up to 90 degree. refer to [FIG.9a]
- 13.) Finish the F-Floor Ends by bending the two small triangles down perpendicular to the floor Refer to [FIG.9a].
- 13.) Take notice to the difference in the number of slots in E-Floor Ends bent in the previous step. One end has three slots near the initial bend and the other will have only two one in each corner. Now take notice to the slots in the E-Floor reference [FIG.9b] the two horizontal slots in the center are for the K-Air Tank Brackets. Begin with the bends facing up on all three components. The two close-together slots on the one side of the Floor End must be attached on the same side as the K-Air Tank Brackets slots, again refer to [FIG.9b]. Next, slide each Floor Ends into either side of the E-Floor making sure the ends are flush and that all slots on each piece line up.
- 15.) Remove G-Under Floor Bracing, H-Center Bracing and I-Bolster



G38 Ore Jemie first built in 1960 in the Sam Rea shops for the soul purpose of hauling iron-ore. A thousand of these cars were built for the PRR in number sequence 15000 - 15999, with a capacity of 140,000 lbs and 1,048 cu. ft. The G38 lasted well into the 1990's hauling ore for three different railroads, the PRR, Conrail, And Penn Central all of which can be represented with this kit.

www.prrspdesign.weebly.com
Not intended for children under the age of 14

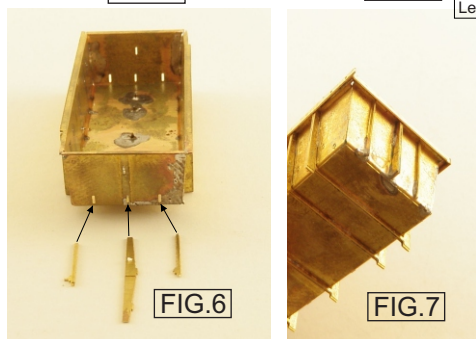
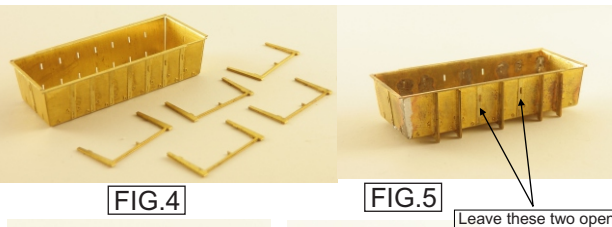
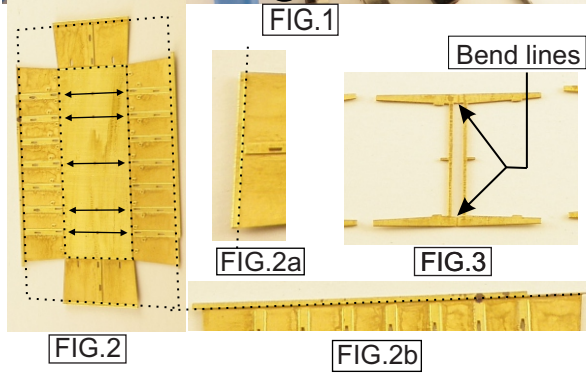
(I have made a few changes in the directions for changes and additions see page 5)

Thank you for your purchase from PRR S.P.F. Design. Begin by unpacking your kit and checking its contents to the parts list below. Take a few minutes to read all the directions to familiarize yourself with the parts and methods needed for assembly. The kit is designed to be glued or soldered together. If you prefer to glue your kit I suggest using a thick CA for a better bond. If you prefer to Solder the kit together I suggest 60/40 solder, a 700 degree iron, and Kester water soluble flux. Flux is the key to getting solder to quickly flow where you want it without de soldering other items. The kit is also designed with locking tabs and bend lines to facilitate assembly . Follow all directions. Should you have any problems, please contact me at prrspdesigns@gmail.com

Parts list

- 1- G38 Etching
- 2- decal sheet (optional)
- 3- air tank
- 4- triple valve
- 5- air cylinder
- 6- .010 wire
- 7- printed directions (optional)

Small parts bag



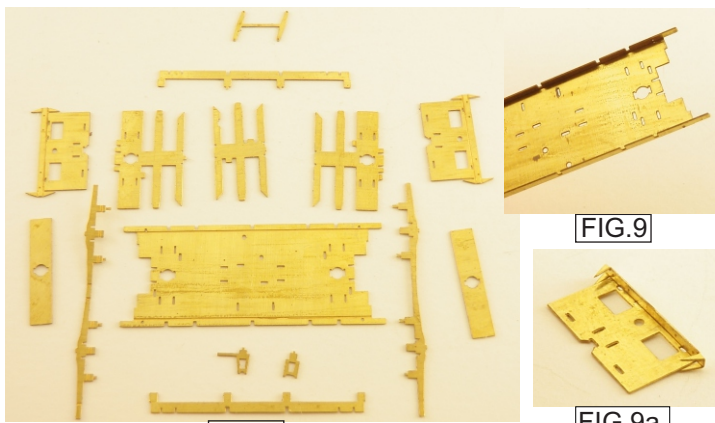


FIG. 8

Be sure the upper two slots line up with these middle two slots

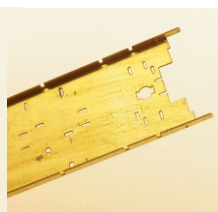


FIG. 9

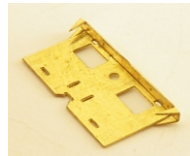


FIG. 9a



FIG. 10



FIG. 13

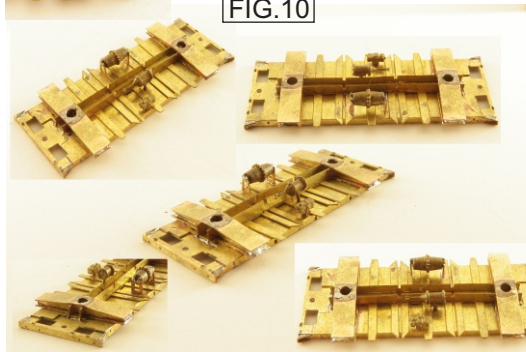


FIG. 9b



FIG. 11

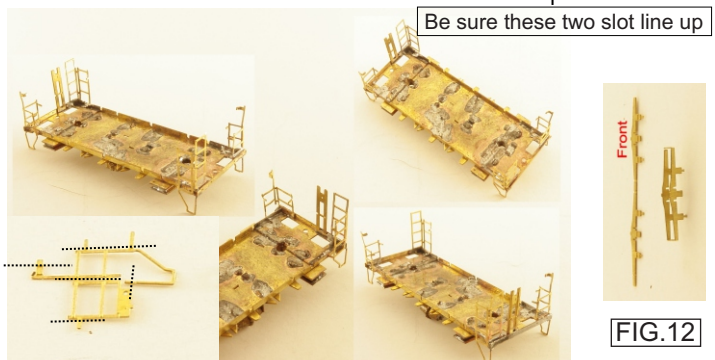


FIG. 12

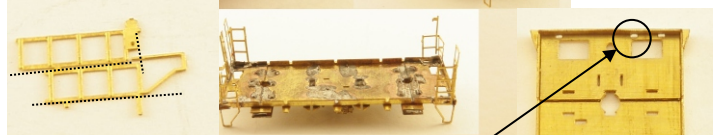


FIG. 14

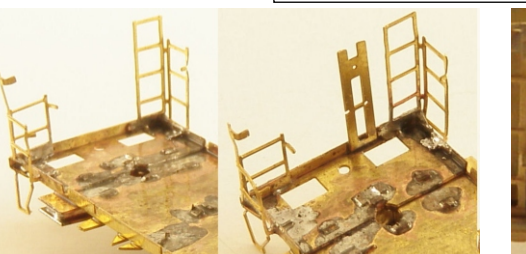


FIG. 15



FIG. 14a

N - Brake Tower assembly

- 16.) Locate the center piece of ©-Floor Bracing and with the bend lines orientated up bend the two small tabs on either side up to 90 degrees
- 17.) Orient the bend lines on the outer two pieces of ©-Floor Bracing up and bend the small tabs up at a 90 degree angle.
- 18.) Position the previously assembled (E)-Floor with the bent edges down. You will be looking at what is to become the underside of the ore car.
- 19.) Now align the three sections of ©-Floor Bracing on top of the floor making sure all slots have clearance and that all the small tabs are located in their proper slots of the floor. Also, the small notch in the center section of floor bracing, must line up with the slot in the floor. refer to [FIG. 11].
- 20.) Insert the (H)-Center Bracing into the corresponding eight horizontal slots in the center of the (E)-Floor. Do so by going through the ©-Floor Bracing. Once through bend the tabs over on the inside of (E)-Floor to secure. Refer to [FIG. 10].
- 21.) Bend (I)-Bolsters into a rectangle keeping all bend lines to the inside of the rectangle. refer to [FIG. 12].
- 22.) Insert (I)-Bolsters into the corresponding four vertical slot at each end of (E)-Floor Bracing through ©-Floor Bracing locking into (H)-Center Bracing once through and flush bend over all tabs on the inside of (E)-Floor. (see [FIG. 10]).
- 23.) Remove both (K)-Air Tank Brackets, and note the differences between the two.
- 24.) Orient the (E)-Floor as shown in [FIG. 13] with the two slots for the (K)-Air Tank Brackets facing you. Inset the air tank bracket with the leg into the right slot. Inset the other bracket (no leg & longer tab) into the left slot. refer to [FIG. 13]
- 25.) Remove the (J)-Bolster Covers. With the etched pockets faced down, mount the covers onto the bolster tabs and form the covers onto the bolsters.
Note: For glue users, after formed and fastened, check the fit of the truck pin. You want it to be a very light press fit
- 26.) Remove the Triple Valve, Air Tank and the Air Cylinder from the parts bag. Install them as shown in [FIG. 13]
- 27.) Remove (N)-Brake Tower, (O)-Brake Platform, three (P)-Brake Gear Housing's, (Q)-Brake Wheel, and (R)-Brake Rod.
- 28.) Insert (R)-Brake Rod long end first into the three (P)-Brake Gear Housings.
- 29.) with etch detail up and the single hole up on (N)-Brake Tower insert the assembly from previous step 28.) into the single hole on (N)-Brake Tower.
- 30.) top this assembly with (Q)-brake Wheel.
- 31.) with (N)-Brake Tower oriented (Q)-Brake wheel up insert the two small legs of (Q)-Brake Platform into the two holes in (N)-Brake Tower making sure that the offset is to the left as shown in [FIG. 14b]
- 32.) With the platform now attached to the tower, bend each of the long platform legs to form an angular support for the platform. Note that there are two etch lines for each leg. One will form the 45° downward angle, and the other will form a short tab parallel to the brake tower as a location for bonding. Refer to [FIG. 14b].
- 33.) Install the completed (N)-Brake Tower assembly onto the (E)-Floor assembly in its proper slot in the Single (E)-Floor End with three slots. The (N)-Brake Tower goes in the inner slot of this (E)-Floor End refer to [FIG. 14a]. Once secured trim bottom of tab flush with floor.
- 34.) remove (S)-Ladders & Stirrups and (T)-Ladders & Stirrups.
- 35.) Orient the (S)-Ladders & Stirrups with etch lines up and the stirrups facing you. Begin by bending the two small ladder supports to the left down at 90 degrees at their etch lines. Next, bend the top edge of the stirrup at the etch line down at 90 degrees. Now bend entire the part along center etch line (between ladders) to form a 90 degree angle. Refer to [FIG. 14] and [FIG. 15]
- 36.) Orient the (T)-Ladders & Stirrups with etch lines up and the stirrups facing you. Begin by bending the two small ladder supports on either side down at 90 degrees at their etch lines. Next, bend the top edge of the stirrup at the etch line down at 90 degrees, as well as the small tab at the top middle of the ladder/stirrup. Now bend entire part along center etch line (between ladders) to form a 90 degree angle. Refer to [FIG. 14] and [FIG. 15].
- 37.) With the (E)- Floor assembly in hand Insert the tabs of each Ladders & Stirrups (S) and (T) into their designated slots at each end of the (E)- Floor. Next, insert the long lower ladder support in the small slots on either side of the (E)- Floor. Next, attach the front of the stirrups to the front edge of the floor ends. Trim excess tab flush with bottom the E - Floor to finish up assembly. Refer to [FIG. 14] and [FIG. 15]

Main Body and Floor assembly and final detail

- 38.) remove (M)-Center Ribs and (U)-Top Cord
- 39.) with (U)-Top Cord oriented bend lines up bend both edges to 90 degrees see [FIG. 16]
- 40.) install (U)-Top Cord on the top edge of (A)-Main Body. Once attached form the front edge with the two holes for the grab iron to the contour provided and then trim off the excess. refer to [FIG. 17]
- 41.) with a 00-90 tap, tap the two holes at each end of (E)-Floor for the couplers in the (E)-Floor Ends.
- 42.) Join the (E)-Floor assembly to the (A)- Main Body making sure (E)-Floor is flush up against (A)-Main Body.
note: you may have to trim the ladder supports on (S)-Ladders & Stirrups and (T)-Ladders & Stirrups for a proper fit onto (A)-Main Body see [FIG. 18]
- 43.) Attach the tops of the long ladders as well as the brake tower to the body.



FIG. 16

- 44.) Orient (M)-Center Ribs with etch lines up. Bend ribs away from you and back against themselves until they are doubled up. Refer to FIG. 19.
- 45.) With the (A)-Main body and (E)-Floor assembly together, install the center ribs into the two remaining slots left and right of the center. Make certain the tabs on the center ribs are oriented correctly to match the slots in the (A)-Main body. These are a tight fit, but be patient and work them down until they fit into place. Refer to FIG. 18 & FIG. 20. You may need to trim the top edges to achieve proper fit.
- 46.) remove (L)-Brake Eccentric and the provided .010 brass wire.
- 47.) position (L)-Brake Eccentric in the center on the bottom of the car with one rod to each side of the brake cylinder. refer to FIG. 21
- 48.) with a #80 drill bit drill, out the four holes in (L)-Brake Eccentric
- 49.) with provided .010 wire make four brake rods to attach to the (L)-Brake Eccentric. bend a small 90 at one end of each rod to insert into the #80 holes you drilled out attach the opposite end onto the underside of (I)- Bolster cover. see FIG. 21.
- 50.) with a #80 drill, drill out the holes for the six grab irons, there are two at each end of (F)-Floor Ends one at each top edge of (A)-Main Body

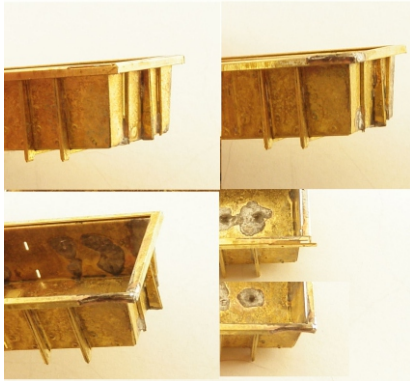


FIG. 17

Here below in FIG. 22 we have (V)- Grab Iron Bending Jig cut from the etch.

Start off by bending a small 90 degree bend in the supplied wired with appropriate tool. Insert this bend into the small hole, with the long end towards the supplied slot. Hold down on the bend, bend the long end down at a 90 degree angle into the provided slot. Now cut the bent Grab iron free and repeat the process for the six grab irons needed for the kit. Once they are all bent attach them in the six location described in step 49.) refer to FIG. 23 and FIG. 24



FIG. 18

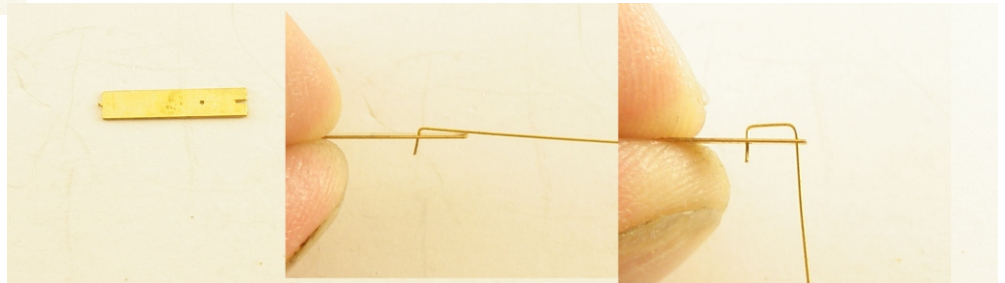


FIG. 22

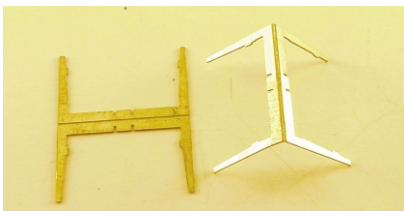


FIG. 19

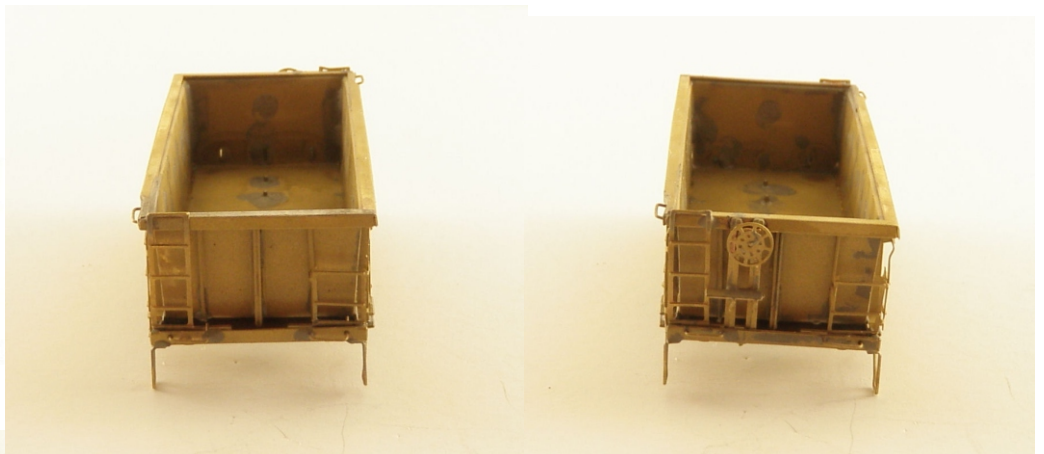


FIG. 23

FIG. 24

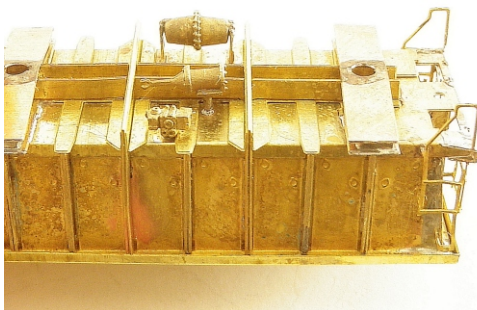


FIG. 20

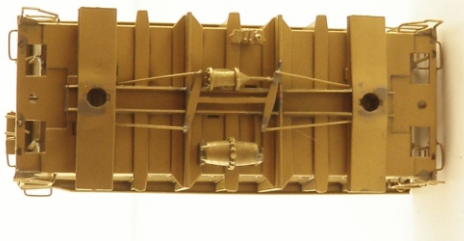


FIG. 21

This kit is designed for Micro-trains Trucks. For later Conrail and Penn Central, I would suggest their Bettendorf trucks. For G38's, I suggest their Andrews trucks. For the early version of the G38, Bowser makes the correct trucks. You will just need to ream out the truck pin hole to accept a Micro-trains truck pin. If you prefer to use BLMA, 70 ton friction bearing trucks, you will need to shim the bolsters for the correct height ride height. Use either 1015-1016 Micro-trains couplers; however, with a little bit of shimming you can use Z scale couplers as well.

FIG. 25



This new part will come into play at step 15.

I have added a bracket for the brake cylinder to sit onto so it is easier to get it at the right height. FIG. 25

This new part located at the upper right hand side of the etch above parts (H) below part (V).

With this I have added a two new slots as well one in the floor (E) located on the same side as the brake cylinder and triple valve and now a single (H) has a horizontal slot FIG.26 that will line up with new slot in the floor (E).

In FIG. 27 you can see what the new assembly looks like.

FIG. 26

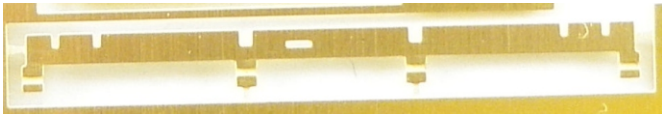


FIG.27

