



# Assembly Instructions: 4427 PS2-CD High-Side Covered Hopper



## **BEFORE YOU BEGIN:**

### **READ THE INSTRUCTIONS CAREFULLY BEFORE BEGINNING ASSEMBLY!**

Read each step thoroughly before attempting to complete it. Study the diagram and locate where various parts will be needed. The part numbers are indicated on the sprues.

Use watery styrene cement, applied sparingly, to assemble this freight car. Make sure the parts fit correctly before you apply the cement. The grooves, notches and slants on each part will help you determine how they fit together, as well as provide a better surface area for a stronger bond. Use sandpaper or a file to roughen a surface that is resisting the cement.

## Removing Parts From Sprues

**Very Important!!** Only cut parts off sprues as needed because some parts appear similar and once they are removed from the sprue you will have no way of identifying them.

In order to achieve maximum prototype fidelity, our detail parts are quite small, with dimensions as small as 0.3 mm to reproduce important details such as see-through chains that add realism to your model. These parts will not break when removed carefully from the sprues using the following steps:

1. Realize that cutting the parts from the sprue is an important step in itself and do not rush through the process. Cutting the part from the sprue correctly takes time. Concentrate and go slowly.

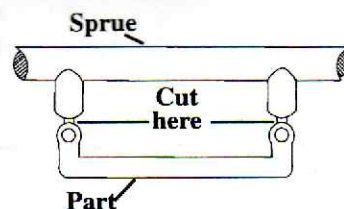
2. Use a powerful magnifier, even if you have 20-20 vision.

3. Never use snips, scissors, cutters or nippers to remove a part.

There are 2 good tools to use:

A. A freshly unwrapped (never used) single edge razor blade or...

B. A thin scalpel-type blade, such as an X-acto® #11, that has been heated briefly just before cutting.

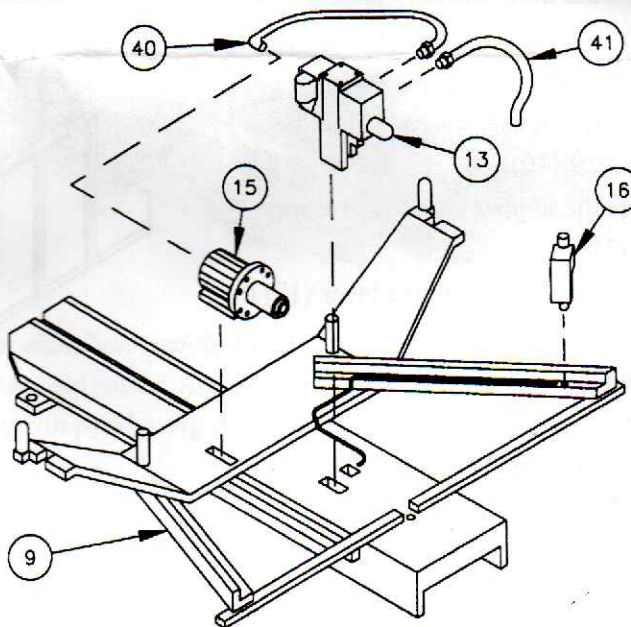


Remember: Putting pressure on the part is what causes it to break: A sharp tool applied to the gate, not the part, will mean success! We want you to enjoy building this car. If you break a part despite following the above instructions, call our 800 number, located on the back page, and we will send you a new part.

\* X-acto® is a registered trade name of the Hunt Manufacturing Co.

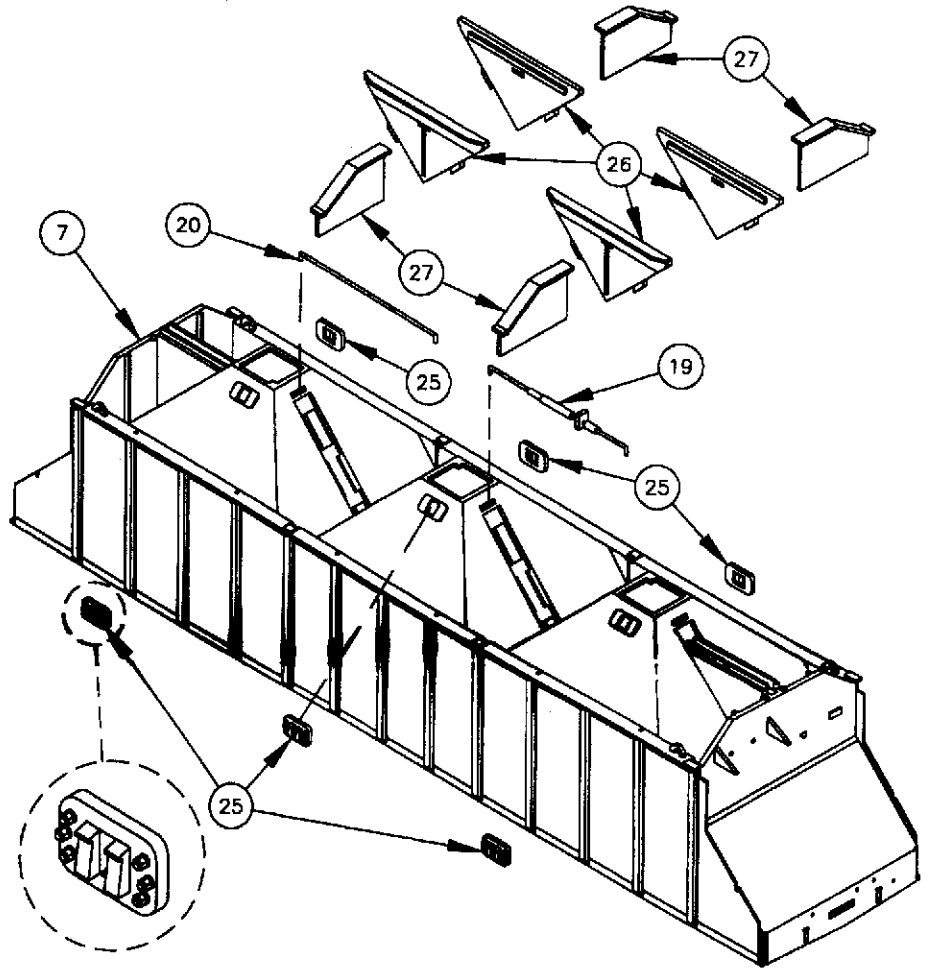
## **STEP 1**

1. Glue the brake cylinder (15), triple valve (13) and retainer valve (16) to the "B" end bolster (9).
2. Glue brake pipe (40) to end of brake cylinder (15) and to lower right hole of triple valve (13).
3. Glue brake pipe (41) to lower left hole of triple valve (13) and side of coupler pocket on bolster (9).
4. Set this assembly aside to dry until it is needed in Step 3.



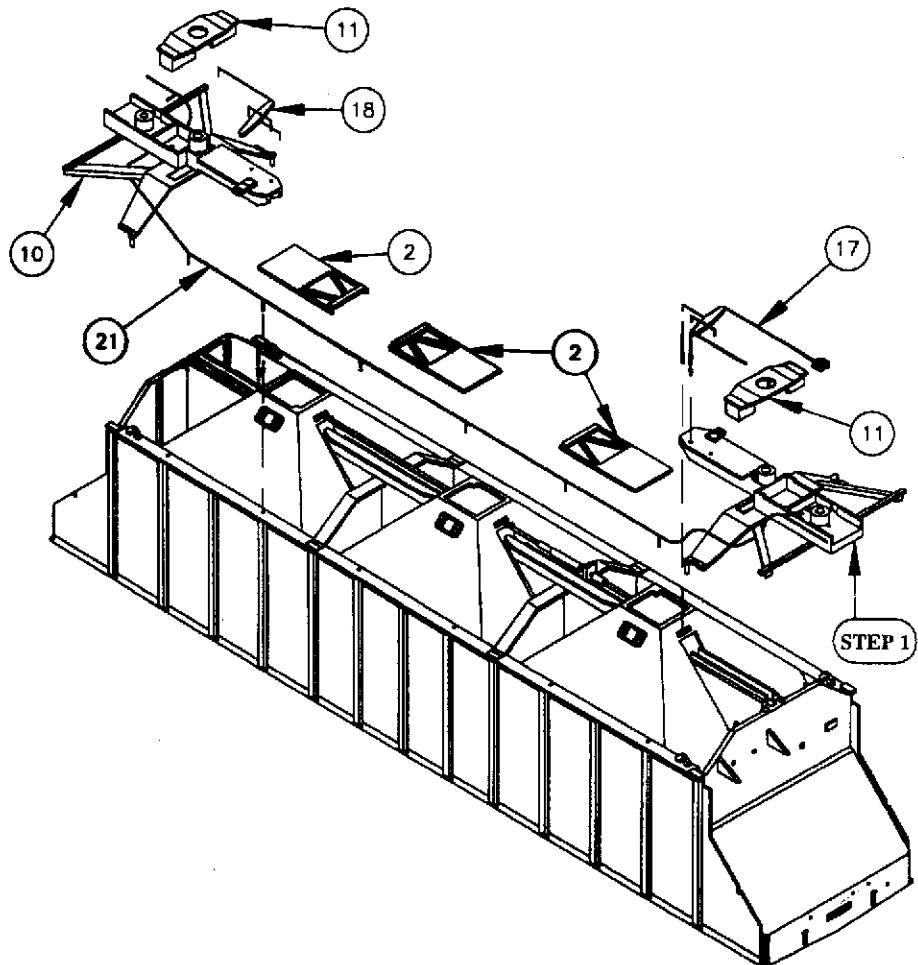
## STEP 2

1. Glue the 4 sill gusset plates (27) and the 4 center sill plates (26) to the body (7). See diagram in Step 3 for assembled position.
2. Note the correct orientation for the shaker brackets (25) and glue them to the body (7).
3. Glue the brake lever (20) and the brake lever regulator (19) to the body (7). Note that the "B" end of the body has holes and brackets on the lower vertical end sheet (to the right in our drawing) and that part 19 goes on the "B" end of the car, part 20 goes on the "A" end of the car.



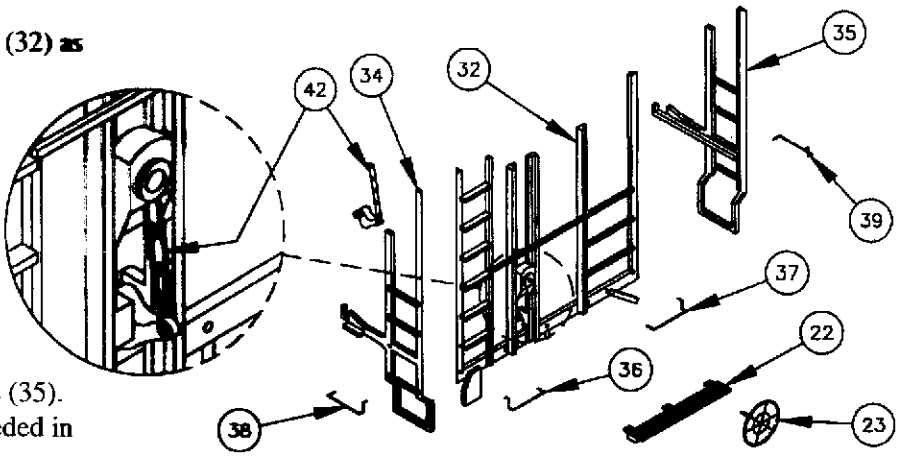
## STEP 3

1. Glue the sub-assembly from Step 1 to the "B" end of the body (7).
2. Glue the "A" end bolster (10) to the "A" end of the body (7).
3. Glue the train line (21) to the body (7), the "A" end bolster (10) and the "B" end bolster (9).
4. Glue the bolster bases (11) to the bolsters (9)(10).
5. Glue the hopper outlets (2) to the body (7).
6. Glue the "B" end brake lever (17) to the "B" end bolster (9).
7. Glue the "A" end brake lever (18) to the "A" end bolster (10).
8. Set this assembly aside to dry until needed in Step 6.



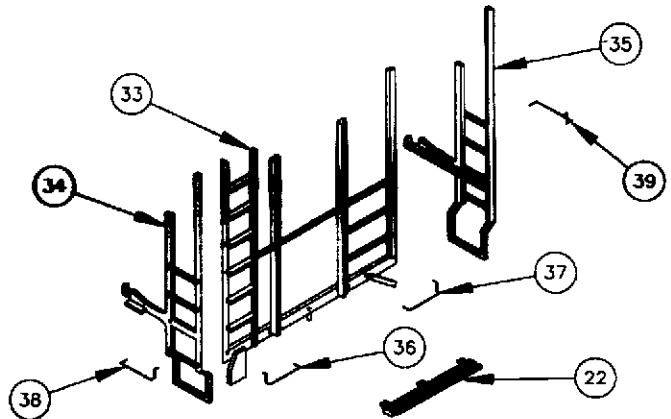
## STEP 4

1. Glue the bell crank (42) to the "B" end cage (32) as shown in the inset drawing.
2. Glue the brake wheel (23) and brake step (22) to the "B" end cage (32). See diagram in Step 6 for assembled position.
3. Glue the left grabiron (36) and right grabiron (37) to the "B" end cage (32). See diagram in Step 6 for assembled position.
4. Glue right side grabiron (38) to right side cage (34).
5. Glue left side grabiron (39) to left side cage (35).
6. Set these 3 assemblies aside to dry until needed in Step 6.



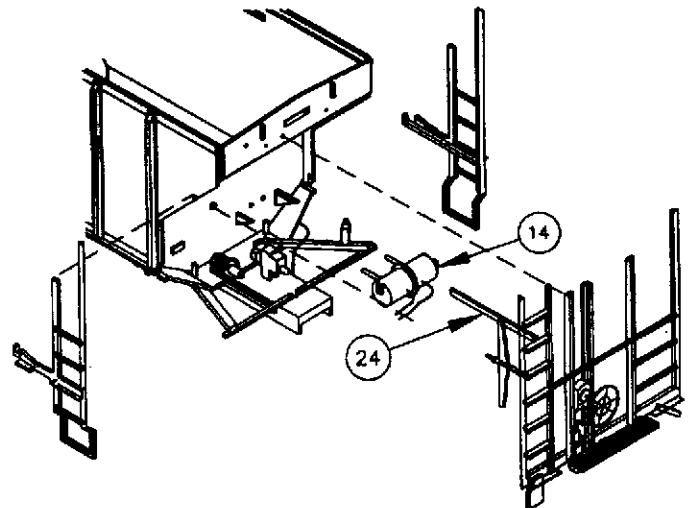
## STEP 5

1. Glue the end step (22) to the "A" end cage (33).
2. Glue the left grabiron (36) and the right grabiron (37) to the "A" end cage (33).
3. Glue right side grabiron (38) to right side cage (34).
4. Glue left side grabiron (39) to left side cage (35).
5. Set these three assemblies aside until needed in Step 7.



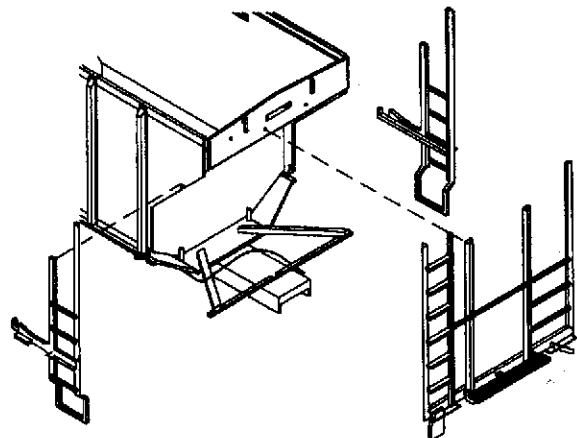
## STEP 6

1. Glue the air reservoir (14) to the body (7) and to the two upper holes in the triple valve (13).
2. Glue the brake arm (24) to the body (7) and to the clevis on the end of the "B" end brake lever (17).
3. Glue the "B" end cage assembly from Step 4 to the "B" end bolster (9), brake arm (24) and body (7).
4. Glue the right side cage assembly from Step 4 to the body (7) and "B" end cage (32).
5. Glue the left side cage assembly from Step 4 to the body (7) and "B" end cage (32).



## STEP 7

1. Glue the "A" end cage assembly from Step 5 to the "A" end bolster (10) and body (7).
2. Glue the right side cage assembly from Step 5 to the "A" end cage (33) and body (7).
3. Glue the left side cage assembly from Step 5 to the "A" end cage (33) and body (7).
4. Set this assembly aside until needed late in Step 8.



## STEP 8

1. Orient the hatches (28) to the roof (6) as shown in the diagram and glue them together.
2. Glue clamps (30) to roof (6) and hatches (28).
3. Orient latches (31) as shown in diagram and glue them to the roof (6).
4. Glue the roofwalk (5) to the roof (6).
5. Glue the roof grabirons (3) to the roofwalk (5).
6. Set this assembly aside to dry until it is needed later.

**NOTE:** In the next two steps, it is important to use the correct screws for each step:

- Coupler pocket screws are the smallest 2 screws.
- Truck mounting screws are the 2 medium size screws.
- Weight mounting screws are the 4 largest screws.

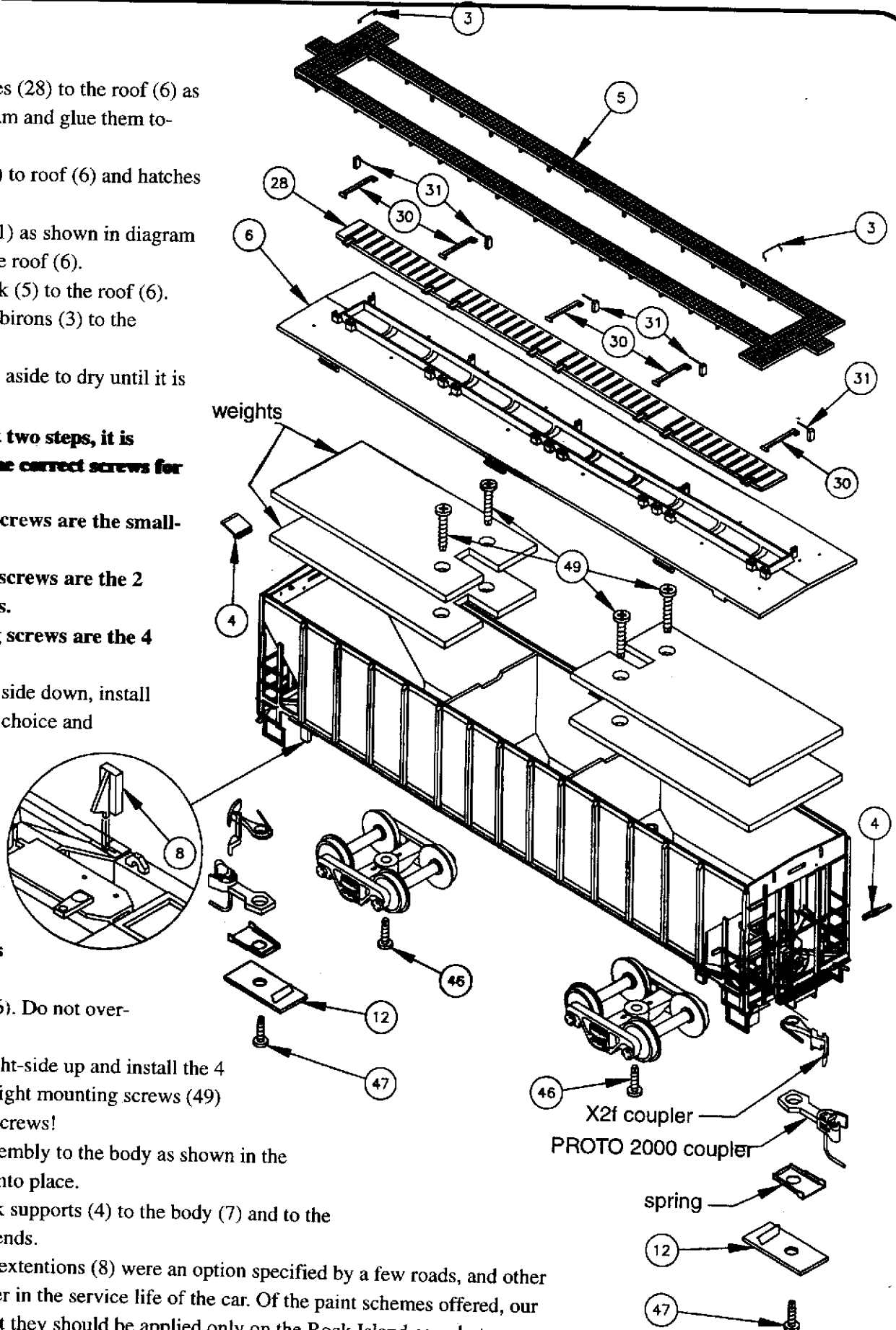
7. With the body up-side down, install the couplers of your choice and attach the coupler pocket covers (12) with coupler pocket screws (47). Do not over-tighten screws! Now place the trucks on the bolsters and attach with truck mounting screws (46). Do not over-tighten screws!

8. Turn the model right-side up and install the 4 weights using the weight mounting screws (49). Do not over-tighten screws!

9. Orient the roof assembly to the body as shown in the diagram and snap it into place.

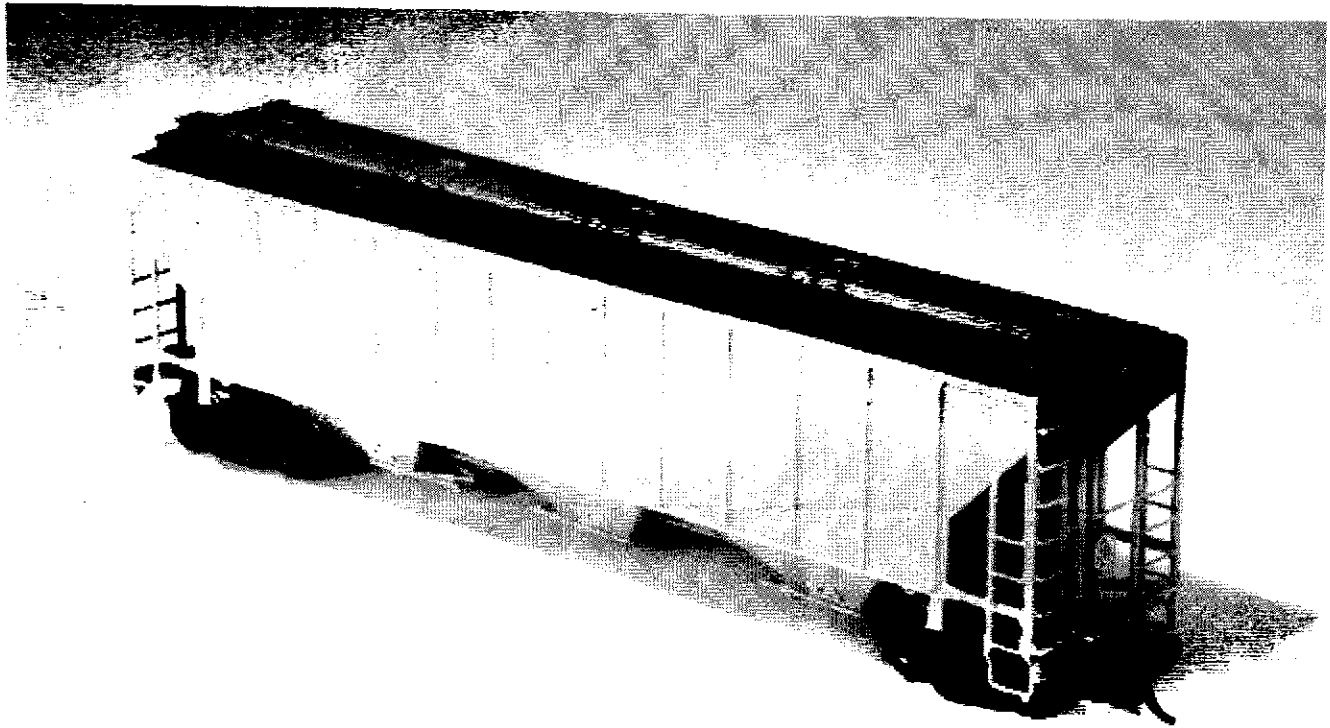
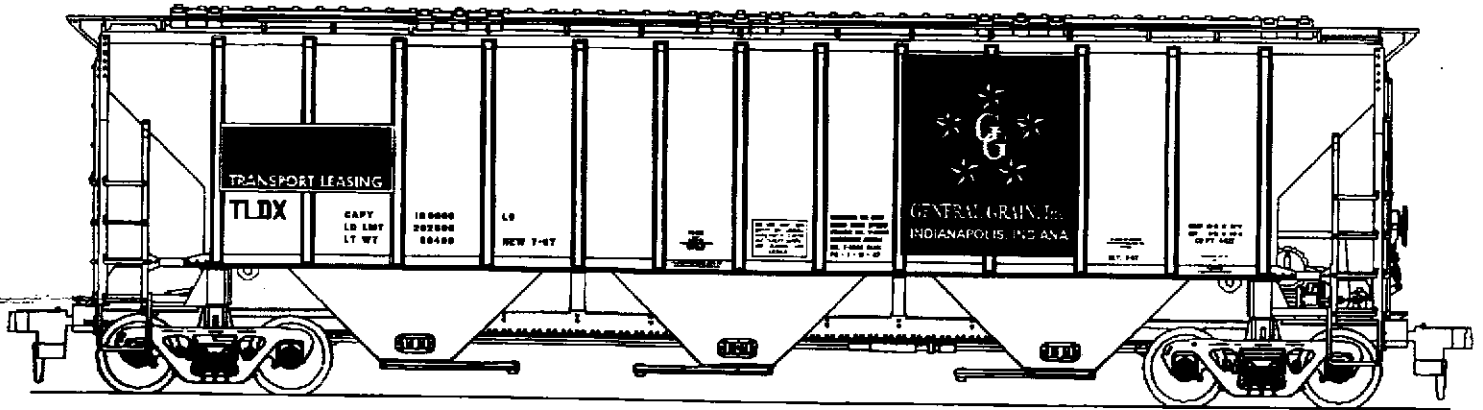
10. Glue the roofwalk supports (4) to the body (7) and to the roofwalk (5) at both ends.

**NOTE:** the jack pad extentions (8) were an option specified by a few roads, and other roads added them later in the service life of the car. Of the paint schemes offered, our research indicates that they should be applied only on the Rock Island cars, but you should consult prototype photographs if you are modelling undecorated or late in the service life of the car.



## STEP 9 COMPLETED MODEL

Some roads have heralds mounted on panels that attach to the side of the car. If you are modelling the General Grain car, trim the "TLDX Transport Leasing" panels to size with a sharp blade and glue the 4 panels as shown below. (Apply to both sides of car.)



*For more information on the prototype of this model, there is an excellent article in the March 1995 issue of Mainline Modeler which includes photographs, scale drawings and a complete roster. Also, today's rail fans can see the car throughout the USA and Canada, especially at harvest time in grain producing areas.*

We hope you've enjoyed building this kit. If you have any questions or suggestions, write us at:  
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