

2260 SHERMAN AVE. • NORTH BEND, OREGON 97459

"S" SCALE ACF 4650 CU. FT. 3 BAY COVERED HOPPER

COVERED HOPPER PARTS

- | | |
|--------------------------|--------------------------|
| 1. Body | 11. Pinion Mechanism (3) |
| 2. Brake Air Tank | 12. Pneumatic Tube (3) |
| 3. Brake Triple Valve | 13. Lift Pates (4) |
| 4. Roof | 14. End Ladder Units (2) |
| 5. 30" Round Hatches (6) | 15. Brake Wheel |
| 6. Elongated Hatches (3) | 16. Brake Air Line |
| 7. Truck Bolsters (2) | 17. Side Ladders (2) |
| 8. Gravity Outlets (3) | 18. Long Grab Irons (4) |
| 9. Pneumatic Outlets (3) | 19. Stirrup Steps (4) |
| 10. Coupler Boxes (2) | 20. Brake Stand |

ASSEMBLY INSTRUCTIONS

Tools Recommended:

Xacto Knife

Pin Vise

Liquid Styrene Cement

Fine Clippers

Small Drill Set

Small File or Emory Board

Tweezers or Needlenose Pliers

Please read the instructions, study the drawing and parts before assembling. Some of the detail parts are very fine and delicate. The best way to remove them from the sprues is with fine clippers or an Xacto knife. **DO NOT ATTEMPT TO BEND, TWIST OR BREAK THE PARTS OFF!**

- (1) The first step, glue the Brake Air Tank to the body. Carefully cut the tank from the sprue leaving long pegs, otherwise the pegs will be too short and the tank will not attach properly. Glue the tank to the end of the body using the two holes just above the large hole. Next cut the Triple Valve from the sprue and glue to the hole in the floor nearest the air tank.
- (2) Test fit the roof to the body. The fit might be too tight in width, if so, file down the edge on the roof that fits inside the body. Be careful when filing not to damage the thin top of the roof which will be on top. If still tight, file the inside edge on the body. Attach the roof by applying glue to the inside edge of the body.
- (3) Now decide which hatches to use on your model. The Elongated Hatches are mostly used with the Gravity Outlets on cars transporting grain, malt and feed. The 30" round hatches are also used on some grain cars, however they are normally used with the Pneumatic Outlets on cars carrying plastics or chemicals. If your model is decorated, there will be an enclosed note advising which hatches and outlets to use for the roadname.

If using the Elongated Hatches, the two longer hatches are placed at each end with the smaller hatch attaching to the center. The hatches line up with the hinges on one side. Refer to the drawing.

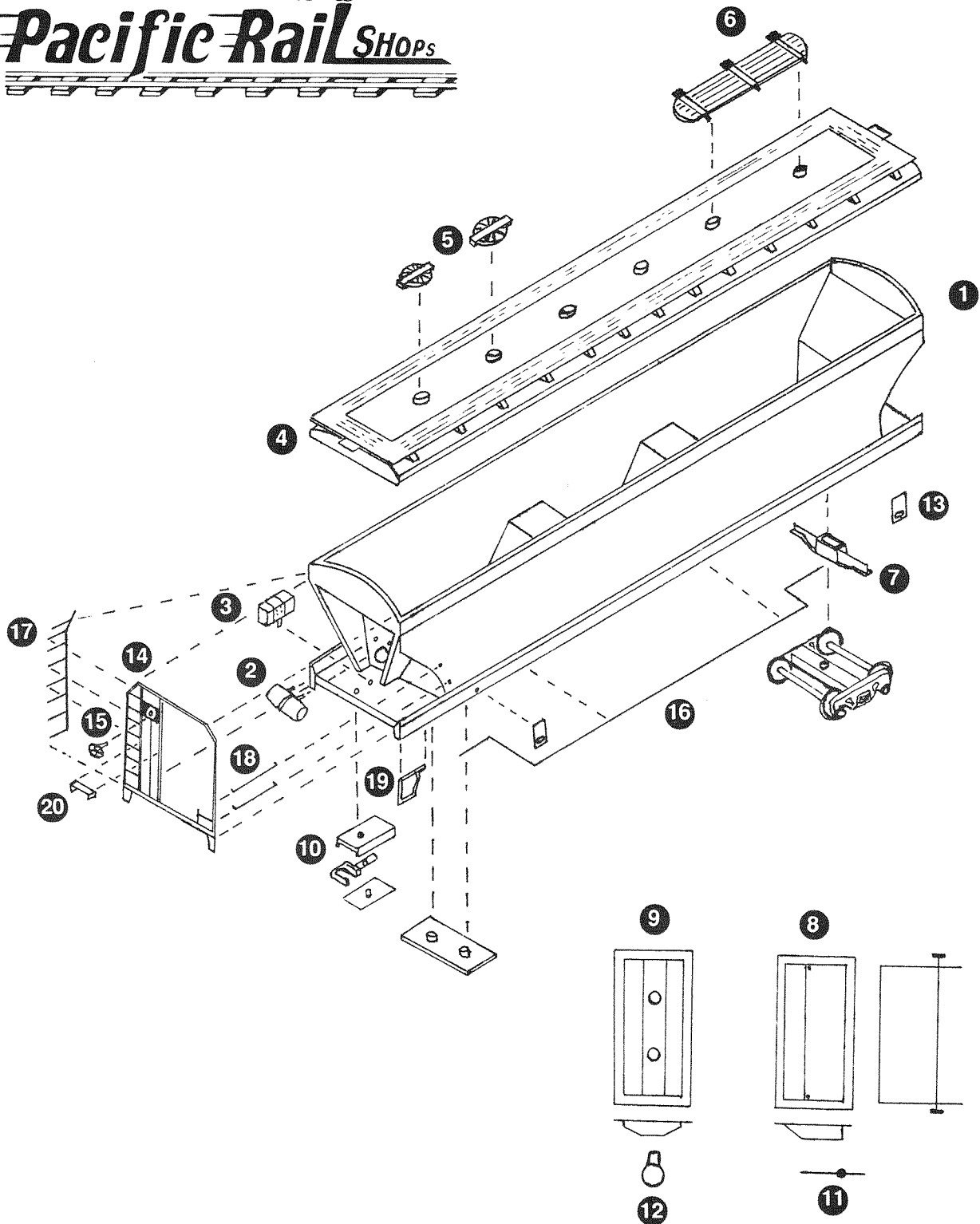
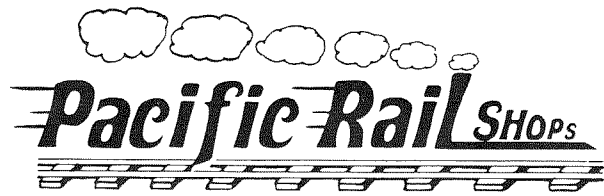
For the round hatches, note that they are placed with the hinges running as shown in the drawing, not side to side. The round hatches in this kit have the hinge/handle protruding down too far for proper placement. You will have to trim the parts. Also note that there is a difference in the round hatch, make sure the hinges run in the same direction.

- (4) Carefully cut off the outlets, if using the gravity outlets check the drawing for proper placement. Please note that the pegs on both types of outlets are too long and must be trimmed down to fit. Test fit and glue. The fragile outlet mechanisms will be added later.
- (5) Next, cut out the truck bolsters, test fit and glue to bottom of car. You may have to enlarge the hole if the fit is too tight.
- (6) We suggest that you test fit couplers and trucks now before further assembly. The coupler boxes provided with the kit will accept Kadee S scale couplers. You may want to enlarge the hole in the bolster slightly for easier attaching of screw.
- (7) Carefully cut out the end ladder sections. Note, the brake wheel section attaches to the end housing the brake tank. Test fit the end ladders, note where the sections make contact with the body. Glue should be applied sparingly to the lower end of the body and to the top center edge of the ladder section. Be careful if you apply glue to other points, as it will squeeze out.
- (8) Now it's time for the side ladders. They are fragile, however if you handle them gently they will be fine. You may have to drill through the hole on the side of the body. Also note that the bottom rung needs to have its knob trimmed just slightly so it will attach correctly. Test fit, then glue, first the vertical section to the two holes, then the individual rungs by lifting up each rung slightly, using a tool, either tweezers or Xacto blade.
- (9) Carefully cut out the four long grab irons, test fit and glue to car. Note the notches on the ladder for the grab irons are slightly off, which doesn't allow the grab to fit level. You can correct this by drilling new holes just below the notches using a pin vise.
- (10) Carefully cut out the remainder of parts, the outlet mechanism, brake wheel and stand, lift plates, corner steps, and brake air line. Test fit and glue, following the drawing as a guide. Finally attach the couplers and trucks.

Ready to roll! We hope that you have enjoyed building this kit and will also have fun rolling or displaying it. We welcome your comments on this model and also suggestions for future projects.

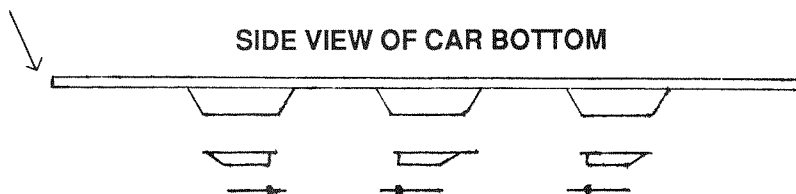
THANK YOU AND KEEP THOSE TRAINS ROLLIN'.

Note: If you find that a part is missing or defective, or if you should break a part, please contact your dealer or write for a replacement.



BRAKE WHEEL END

SIDE VIEW OF CAR BOTTOM



ACF CENTER FLOW® 4650 TYPE

Production began in 1963 with the prototype car, ACFX 105. In 1964, "4650" Types really began to roll out of the Huntington, West Virginia plant. Over 700 were built that year and production continued until 1982. Total production of "4650" Types was 15,838. Approximately 30 railroads used the "4650" Type cars, and many private owners. Most of the cars are still in service and are showing up on some of the new short line railroads.

Trucks used on the cars are 77 or 100 ton friction or roller bearing types.

Cars are used to transport grain, malt, kaolin clay, salt, limestone, sugar, borate, bulk plastics, corn starch, magnesium oxide, soda ash, urea and carbon black.

Our model is an early version from 1964-65. Some of the railroads having this version were New York Central, Great Northern, Kansas City Southern, Western Maryland, Western Pacific and Louisville & Nashville. With a few minor cosmetic changes, you can model many other railroads. Some cars have been passed around a bit, for instance, NYC cars went to Penn Central, then Conrail, and have just recently been sold to Canadian National. Many cars were also leased to private companies.



Cotton Belt #76978, built in 8/71, has newer horizontal ribs, but still has lower single rib. Photo at North Bend, Oregon —1989



Cotton Belt # 74204, built in 11/72, with new rib section, lower rib not used. Photo at North Bend, Oregon —1989