Place air line end of each brake pipe assembly (o) in round hole in end of car body. One locator for each brake pipe assembly is on top of the coupler box. The second locator "hooks" over inside of main cross brace adjacent to coupler box. Air line should be touching side of coupler box to provide maximum clearance for wheels. (See Figure #5.)

### Step 5: Bottom Ladder Rungs, Long Grabs and Brake Steps

Mount two bottom ladder rungs (r) and one long grab (s) on each end of the car. (See Figure #6.)

Mount one brake step (t) on each end of car. Step with notch goes on brake end of car to accommodate chain on brake mechanism. (See Figure #2.)

### Step 6: Shakers & Bay Doors

Attach shakers (u) to each side of bays.

Attach bay doors (v) to each of the three bays. Be sure to smooth the bottom surface of the center bay to remove excess material to allow door to fit correctly.

### **Step 7: Hatch Covers**

Place hinges (w) in each of the locator holes in the roof with the front of the hinge facing the hatch. Use a small amount of glue on each of the hinge locator pins. Place the hatches (x) in place, starting from the brake end. The long hatch with one latch goes on first, the two short hatches go in the center, and the long hatch with latches on each end goes on last. (See Figure #1.) The hatches and hinges are fragile, so the modeler may want to glue the hatches in place, making them non-operating.

### Step 8: Trucks

Trucks require no glue. They are assembled by snapping parts in place. First, snap sideframes on to bolster. Then, wheelsets may be snapped into place. Brake beams are put in place last. (NOTE: When removing brake beams from parts sprue, be sure to trim as close to runner as possible so that brake beam is long enough.) (See Figure #3.) Mount trucks to car body with screws, completing assembly of your model.

Note: Your car is now ready to put into service on your model railroad empire. We hope you have enjoyed building this model. We welcome your comments on this kit and also suggestions for future projects. If you find that a part is missing or damaged, or if you should break or lose one, please contact your dealer or the company for a replacement.

### THANK YOU FOR PURCHASING AN INTERMOUNTAIN KIT!!

## INTERMOUNTAIN RAILWAY COMPANY

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# HO Scale 4750 Cubic Foot Rib-Sided (18 Rib) 3-Bay Covered Hopper

### PARTS LIST

. Body (a)	5. Detail Sprue #2 (Continued):
. Roof (b)	6 Bottom Ladder Rung (3 Left &
. Roofwalk Sprue:	3 Right) (r)
2 Long Walk (c)	4 Roofwalk Grab (y)
2 End Walk (d)	2 Long Grab (s)
. Detail Sprue #1:	2 Brake Step (t)
2 Coupler Box Assembly with	4 Ladder Brace (2 Left & 2 Right
Bolster (f)	(h)
2 Coupler Box Cover (g)	6. Ladder Sprue:
1 Air Valve with Air Line (n)	2 End Ladder Assembly (i)
1 Air Tank with Air Lines (k)	2 Side Ladder - Right (j)
1 Triple Valve (m)	2 Side Ladder - Left (j)
2 Brake Pipe Assembly (o)	7. Hatch Cover Sprue:
4 Diagonal Ladder Brace (2 Left & 2	1 Set of Smooth Hatch Covers (x
Right) (1)	1 Set of Ribbed Hatch Covers (x)
. Detail Sprue #2:	20 Hatch Cover Hinge (w)
2 Bay Divider (e)	8. Truck Package:
3 Bay Door (v)	2 Sheet Metal Screw (t1)
1 Brake Mechanism & Brake Wheel	4 Sideframe (t2)
(q, p)	1 Brake Beam Sprue (t3)
8 Shaker (u)	2 Bolster (t4)
``	4 Axle with Wheels (t5)

### **RECOMMENDED TOOLS:**

X-acto Knife Fine Clippers Small File or Emery Board Tweezers Pin Vise Small Drill Set Small Phillips Screwdriver Liquid Styrene Cement

### **GENERAL INSTRUCTIONS:**

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

Before gluing any of the parts, test fit and check for flash. When attaching small parts, use tweezers or a blade to help hold them. Only small amounts of glue are needed to affix styrene plastic.

The connecting point between the part and the "runner" to which it is attached is called a "gate". In most cases the gates are designed to be trimmed completely flush with the part. There are two sets of exceptions to this rule. The first set of parts, listed below, should be cut from their runner as close to the runner as possible as the locators are used as "gates" for molding these parts:

- 1. End of air lines attached to air tank (k).
- 2. Locator near the center of the brake pipe assembly (o).
- 3. End of air line attached to "small air valve" (n).
- 4. Hinges (w).
- 5. Roofwalk grabs (y).

The second set of parts have small gates at each point of connection to the runners. The gates end, in each case, at the first point of expansion and should be trimmed to that point:

- 1. Bottom ladder rungs (r). There are small gates that must be trimmed at each end of the part. Locators are found just inside the gates at each end.
- 2. Brake step (t). Look at the back of the part to determine the separation between the gate and the brake step.
- 3. Hatches (x). The gates end at the beginning of the two-part hatch cover holddown.

You will note that all of the locators on the long roofwalks are placed away from the end of the walks. If the ends of the walks do not sit flush with the roof, you may need to attach them with a small amount of glue on the inside supports.

### **ASSEMBLY INSTRUCTIONS:**

### Step 1: Body, Roof and Walks

Carefully remove four walk sections (c,d) and roof (b) from runners with a sharp X-acto knife. Test fit roof to body (a) and trim as necessary. Fasten all four roofwalk sections to roof. Position sections using locator holes, then place glue in locator holes on back side of roof. Attach two roofwalk grabs (y) to long walks using a small amount of glue on locators before placing in locator holes. Set assembly aside to dry.

Remove the two bay dividers (e) from detail sprue and place in slots on inside of body cavity. A small amount of glue may be used to hold them in place. Weight may be added in bottom of bays as desired. No weights have been supplied with the kit.

Fasten roof assembly to car body using small amounts of glue on inside of side channels and ends of body. Looking at brake end of car, locator holes on roof for hatch hinges should be on your left.

**Step 2: Couplers and Coupler Boxes** 

Assemble coupler boxes (f,g) using appropriate couplers. (Kadee #5 is recommended.) Once couplers have been placed in coupler box, fasten covers using a small amount of glue in the two locator pin holes in coupler box. Glue coupler boxes to body. Each box is designed to go on only one end of car. Be sure to test fit before fastening.

Step 3: Ladders and Ladder Braces

Attach four ladder braces (h) at ends of lower body sill, placing rectangular ends of brace in locator holes on ends of body. (See Figure #4.) Long angle section of the brace should be on the inside with angle facing down.

Fasten end ladder sections (i) to appropriate ends of car. (See Figure #6.) Locator pins on center of bottom brace determine which end each section fits. Test fit side ladder (j) sections. There are two "left-hand" and "right-hand" sections. (See Figure #4.) Fasten them in place using a small amount of glue on each of the locators. Be sure that the vertical brace towards the outside fits *inside* the adjacent brace. There is no locator for the "loose" end of the ladder section. It must be held in place with glue.

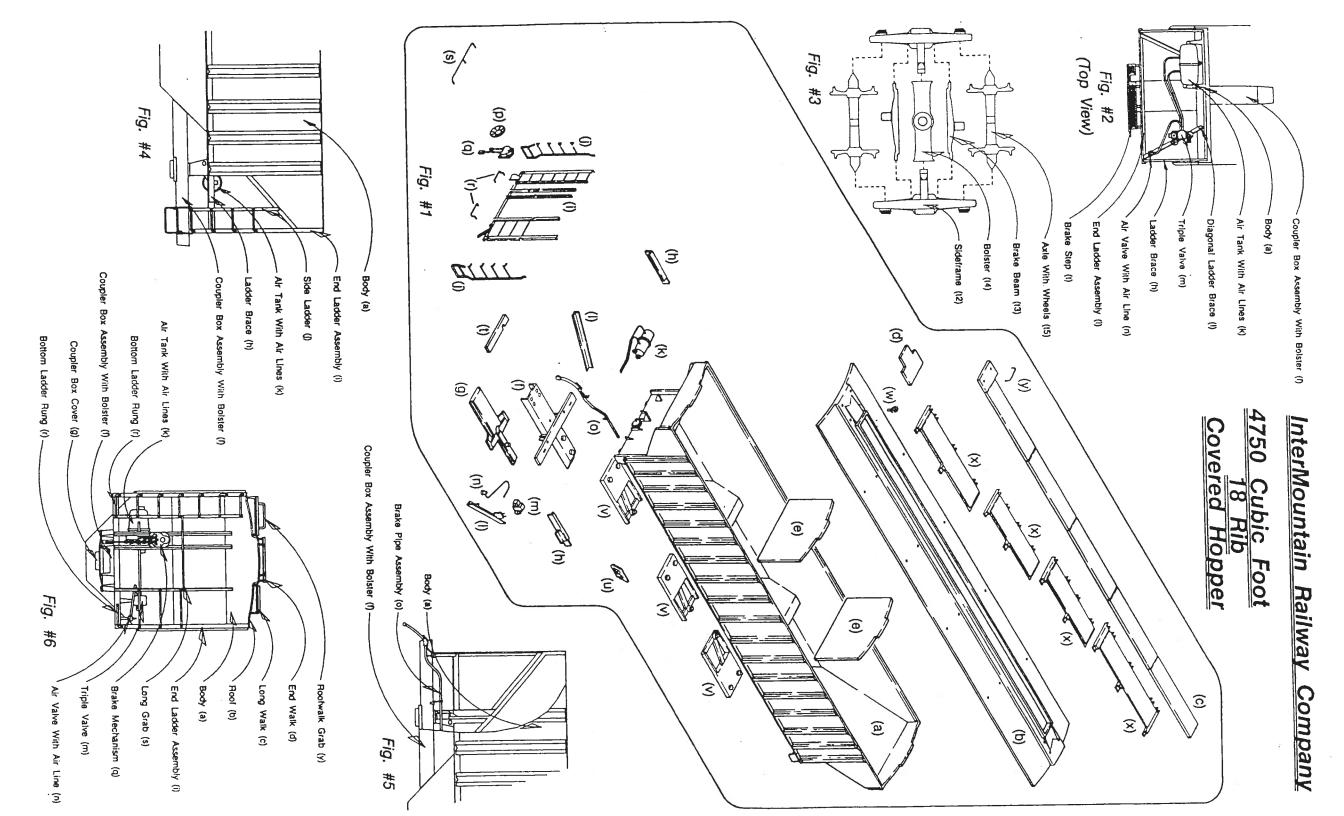
Step 4: Brake System and Diagonal Braces

Fasten air tank (k) in place. It rests on the two locators projecting from the brake end of the car with the two short air lines pointing to the right. Install the four diagonal braces (l). Each has a locator pin on one end, and the angle faces inward and upward. The end of the brace that does not have a locator pin glues to the cross brace near the corner. One of the four braces has a locator/brace for the triple valve and goes on the right hand side when facing the brake end of the car. (See Figure #2.)

Glue the triple valve (m) in place on two locator pins on triple valve mount on diagonal brace and to ends of air lines projecting from air tank. (See Figure #2.)

Attach separate air valve and curved air line (n) placing small locator pin on diagonal brace in locator hole in valve and end of curved air line in opening in triple valve below end of air lines from air tank. (See Figure #2.)

Mount brake wheel (p) on brake mechanism (q) using locator. Next, mount brake mechanism on ladder assembly on brake end of car, using four locator pins and appropriately spaced locator holes on vertical braces.



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# "History Of The Prototype"

In the early Seventies, Pullman-Standard began production of its 4750 cubic-foot three-bay covered hopper. Since that time, several other manufacturers have built similar 4750s. Over 150 users have purchased this car, including more than 30 railroads and 120 private companies. At this writing it is estimated that more than 80,000 4750s have been produced. Distinctive features of this car are its high side sills and nineteen side panels, including the trapezoidal end panels. Another design distinction is its "step-curve" roof, which gives the car additional strength.