

How About a Buffer-Mounted EOT Bracket?

By Jeff Schmidt

When you ship a passenger car in freight service, there is a fair possibility the car will be the rear car in the train. Indeed, BNSF specifies rear location when possible. If you are the rear car, it is a virtual certainty that the railroad will mount an End-of-Train device, or EOT, on the car. Since the buffer normally interferes with the standard EOT coupler mount, various alternatives have been used.

First, some car owners choose to remove the buffer plate. While this method is effective and eliminates the possibility of damage from shelf couplers or locomotives with snowplows, it can be a lot of work to remove and reinstall the buffer plate.

To permit installation of an EOT without removing the buffer, various bracket designs have emerged. Some have a pin which drops into the hole in the top of the coupler knuckle (this won't work with a CS knuckle). There has to be some method of preventing the bracket from swiveling from side to side so that the EOT remains facing to the rear. Other designs clamp into the slots on the side of the coupler.

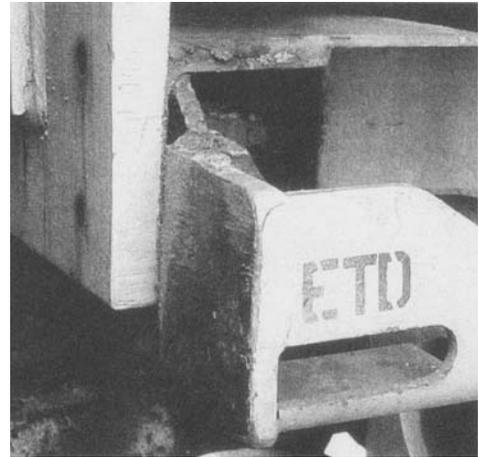
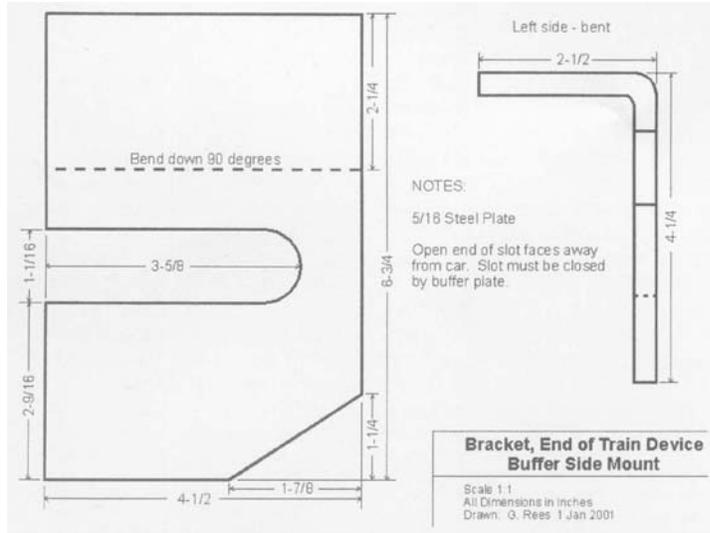
There are several disadvantages to coupler brackets: most prevent the coupling of other equipment to the car until the bracket is removed. Someone familiar with the bracket and installation must be there whenever an EOT is installed to explain the process, and must be there when it is removed so the bracket doesn't get tossed into the weeds or the back of a car inspector's all-terrain vehicle. Otherwise, you run the chance of a variety of undesirable results: your car may be set out of the train, or; as happened last year on BNSF, a bracket was field welded onto the end sill of a stainless car. Or the EOT is removed but the bracket is left in place on the coupler. The switch crew doesn't see it and they couple into the car and demolish the bracket. All of the above lead to unhappy car owners and and railroad personnel.

An option car owners may wish to consider is a buffer mounted EOT bracket. They're standard on BNSF business cars, from which this design comes. The buffer mount has several advantages. Since it doesn't attach to the coupler, the bracket does not have to be removed to couple into the car, and it's always there. No need to carry coupler mounted brackets which get crunched or lost.

Fabrication is pretty simple. It's just a flat piece of 5/16" or 3/8" steel (Figure 1) cut and slotted as shown in the drawing, then bent 90 degrees. Weld it onto the right end of the buffer as you face the end of the car. The vertical face of the buffer should close off the open end of the slot.

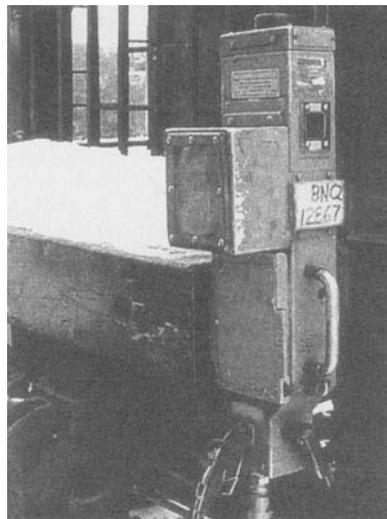
Inevitably, you may find that you have to modify the mounting to allow for the specific peculiarities of your car. This may mean adding a piece to offset the bracket more to the side, or attaching the bracket to the bottom of the buffer. If you do mount the bracket to the bottom of the buffer, or to an additional offset piece, the open end of the slot must be closed off somehow so the EOT device does not slip out of the bracket. Allow two feet of vertical clearance above the bracket to accommodate the EOT and antennae. Finally, and this is very important, label the bracket with the letters EOT or ETD to help alert railroad personnel to the presence of the bracket.

Photos and drawing by Jeff Schmidt

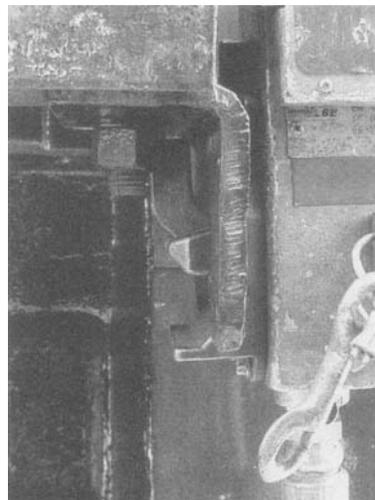


EOT bracket with additional side offset for end sill clearance.

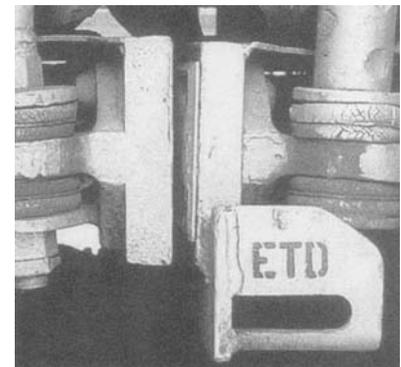
Figure 1: Bracket fabrication



Bracket mounted to bottom of buffer with EOT in place.



Bracket mounted to bottom of buffer, and showing engagement of EOT mount into slot. Important: both ends of the slot must be closed if the bracket is mounted below the buffer.



EOT bracket offset to the side, and lowered for additional clearance.