

**PART I - HOPPERS - AAR Type HM**

To produce a realistic scene, operating with open load cars requires extra work. While enclosed cars such as box cars, can be routed throughout the layout loaded or empty, it is obvious if there is a load with an open car. Multiple manufacturers have released coal or sand loads for hopper cars. There are two problems using cast loads in hopper cars:

1. How to easily get the load into and out of the car?
2. What to do with the load when the car is running empty?

Getting the load into the car: Select a load that was designed to fit the car at hand. If none is available, select a load that is slightly larger than the car's opening. Use a large flat file to smooth each edge of the load and to reduce the dimensions so that the load easily drops into the car. File the edges to a slight taper so the load is narrower on the bottom of the load versus the top. Use the flat file to make a notch / insert hole in the "B" end / brake end of the load. By placing the notch on the brake end, it is easier to locate for load removal. Mark the car's reporting mark on the bottom side of the load so the load can be placed in the correct model. Note each model manufacturer's hopper car has unique dimensions so swapping loads between cars, such as Atlas, Athearn, Bowser, Accurail or Walthers, can cause fit issues. Some loads may need to have a slight notch cut near the middle of the side to allow clearance for a center brace in the car.

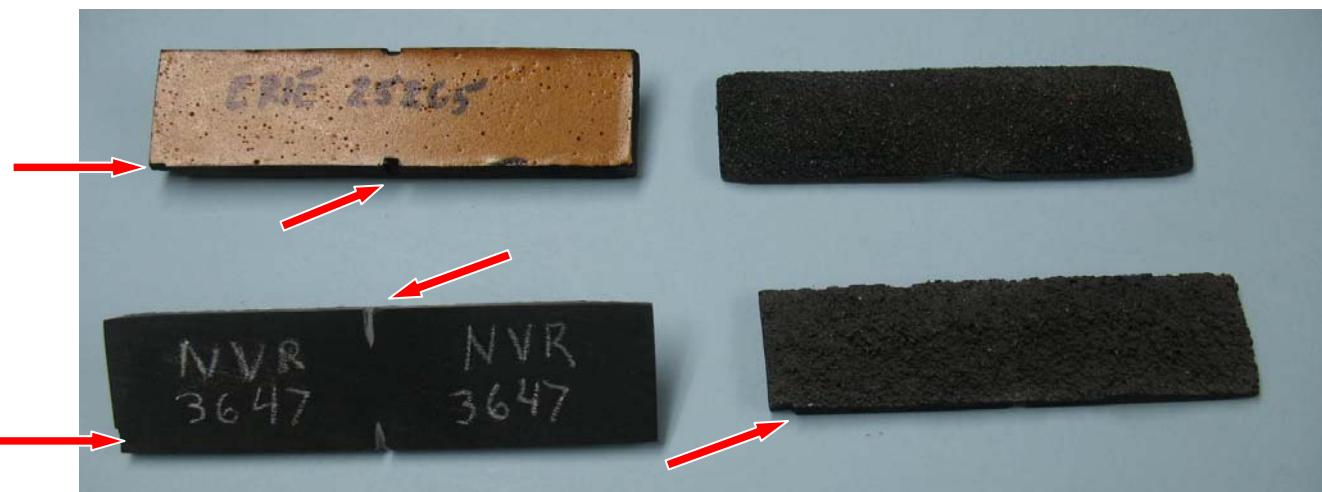


Photo # 1- Commercial coal load- sized, notched & numbered

Arrows show a notch for removal and clearance for the brace at the center of the car. Write the car's reporting marks on the back of the load so the load is returned to the correct car

Getting the load out of the car: Make a small removal tool from a 1/8" dowel and "L" shaped bent piece of music wire. The wire is super glued into the end of the dowel. Together, they form a hook / removal tool. Holding the dowel, the wire end is inserted into the notch in the load and twisted. The load is lifted out for easy removal.



Photo # 2 - Load removal tool - Music wire & dowel

To remove the load from the car, insert the tool into the "B" or notched end of the load, twist the tool so that the hook passes under the load and lift out. The end will be outside the car edge so that it can be removed by picking it up with your hand. With practice, the load can be removed from the car without disturbing the car and thus keeping it on the tracks.



Photo # 3 - Removing the load using the tool

Storing the load when not in use: Parts boxes are available at large box stores or hardware stores. Look for one that has components slots approximately the same size as an HO car's width. These boxes come with spacers which allow the slots to be sectioned off. You can set up the slot spacing for various sized loads. As you make more loads, you will need more boxes. A medium sized layout can easily use three or more boxes.



Photo # 4 - Load storage box

Operations: When the car's waybill calls for a load, select the load from the parts box by matching the reporting marks on the car and load. Place the load in the car. When the load is delivered, remove the load using the tool and place the load in the parts box. Advance the car's waybill to match an empty car. Using this approach, the car with or without load can easily match the waybill in your card car system for a more realistic operating session. No more moving a loaded or empty car from industry to industry. Now loads are delivered and empties returned for another load!