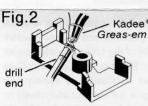


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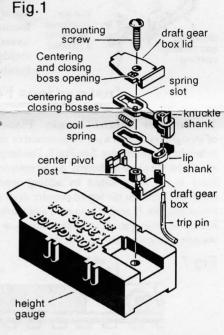
KADEE®HOn³ COUPLER HEIGHT GAUGE OPERATING AND ASSEMBLY INSTRUCTIONS

Before beginning assembly on the coupler height gauge, examine each part of the drawing in Fig.1. Familiarize yourself with each part.

1. Remove each coupler part from the enclosed sprue, then prepare them for assembly by removing all flash and burrs. Special attention is required for the draft gear box, gear box lid, and both coupler halves.



Burnish the above surfaces with the round end of a small drill as shown in Fig.2. Using Kadee *No.231 Greas-em during this process, speeds the work and provides a smooth polished working surface. Having properly prepared all the parts, assembly can be started.



- 2. Before inserting the flattened end of the trip pin into slot of the underside of the knuckle shank, file off burrs from top edges of the flat end of the trip pin so it will easily slip into place. See Fig.3.
- 3. Insert trip pin upward and through slot of the knuckle shank from underneath. Thread trip pin through top of the elongated slot on the lip end of lip shank so both shanks nest together.
- 4. Place assembled coupler over draft gear pivot post with trip pin down. Wedge a pen knife blade or the Kadee® No.235 Spring Pic tip between end coils of centering spring. Position spring between draft gear pivot post and back of coupler shank slot. See Figs. 4 and 5.
- 5. Place draft gear box lid over draft gear and coupler assembly, make certain the small coupler centering bosses located on the coupler shanks are freely positioned in the coupler centering and closing openings of the draft gear and lid.
- 6. Test coupler to see if it easily pivots from side to side and then returns to a closed centered position. If coupler fails to do this, remove draft gear lid carefully and check to make sure coil spring is correctly positioned, then reassemble. Make certain that you use *Greas-em* for lubrication as suggested in step 1. At this point, if you wish, a small electric soldering iron with pointed tip can be used to touch corners where

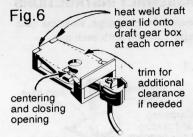


Fig.3



can be used to touch corners where the box lid rest on the draft gear box. See Fig.6. This will "weld" the lid and box together. Trim rough spots caused from the welding process with a sharp knife blade.

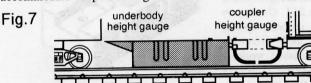
7. The coupler can now be placed in the height gauge coupler cavity, align the hole of the draft gear pivot post over the pre-tapped 0-80 screw mount hole. Install mounting screw, taking precautions not to tighten screw so tightly that it interferes with the performance of the coupler.



8. After mounting, add a puff of *Greas-em* to inside of coupler assembly and blow this powder past each side of the coupler shanks. The use of this dry lubricant will reduce friction and improve coupler performance. Work coupler from side to side within the gear box to further burnish and polish working surfaces.

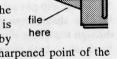
Instructions For Use:

1. Coupler Height Gauge: Place height gauge on a section of straight track, roll a car or locomotive in position and engage coupler to height gauge coupler. See Fig. 7. The height of the rolling stock coupler should be the same as height gauge coupler. If the coupler of the rolling stock is too high, adjust by adding spacer washer(s) of appropriate thickness between the top of coupler draft gear lid and the underbody to lower coupler. If height is to low, add washer(s) between truck and body bolster of rolling stock to raise coupler, or file out area of underbody to accommodate coupler draft gear.



2. Car Underbody Height Gauge: Keep point on gauge sharp by filing, being sure to always file from the underside of the projecting blade to maintain the established correct mounting height of the top surface of height gauge. Place gauge on track and move rolling stock

(without couplers) in position, the bottom of underbody should just clear the top surface of the height gauge. See fig. 7. If underframe or car body is too high or too low, adjustments can be made by



referring to the above instruction (1). Use the sharpened point of the projecting blade on the height gauge to scribe line on underbody to indicate where cutting or filing is needed.

- 3. Track Width Gauge: Place gauge slots on track. Proper track width can be determined. Also used to lay track when you spike your own rails.
- 4. Wheel Width Gauge: Roll wheel sets through slots on side of gauge. Wheels should pass through freely. If wheels hit on outside of gauge, wheels are spaced too wide. If wheels hit on the inside, Wheels spacing is too narrow.
- 5. Uncoupler Gluing Jig: The steel pins at the bottom of the gauge will hold the Kadee No.709 permanent magnet uncoupler at the correct position while gluing onto track. After fitting and gluing uncoupler, place gauge on track and run it back and forth over the uncoupler to make sure it is in proper position. If position is correct, leave gauge in middle of uncoupler until glue is dry.

