



454

SWING BRACKET ADAPTOR KIT

For 30-Series Draft Gear Boxes
Couplers Not Included

Contains: 2 ea. Swing Brackets, 2 ea. Steel Torsion Springs, 2 ea. Swing Bracket Cover Plates (pie-shaped), 2 ea. Forked Assembly Tools, 2 ea. 30 Series Draft Gear Boxes with Lids, 3 ea. Bronze Torsion Spring, 2 ea. .025" Round Shims, 4 ea. .015" Round Shims, 2 ea. 0-80 x 3/8" Round Head Screws and 2 ea. 0-80 Hex Nuts. Note: Couplers not included as part of this kit.

Note: 30 Series Draft Gear Boxes provided in kit have been modified for use with Swing Bracket.

1. This kit is designed to provide a wide swinging coupler mounting bracket for use on many locomotives and cars (60' and over) to allow negotiation of 18" radius curves, 'S' curves, switch ladders and cross-overs. The Swing Bracket Adaptor Kit may also be used to provide close prototypical coupling between longer locomotives and/or cars.

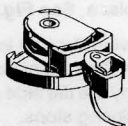
2. For Swing Bracket mounting, two methods may be used. (a) Use the provided 0-80 x 3/8" screw and 0-80 nut. A hole needs to be drilled completely through mounting surface using a #52 (.063) drill. (b) Using only the 0-80 screw, drill and tap an 0-80 hole into mounting surface and trim screw to correct length if necessary. Remove all burrs and smooth with a fine file. You may wish to use the **Kadee® #780 Tap and Drill Kit** for drilling and tapping.

3. Use an appropriate Coupler (the correct shank offset and length for your model). The Swing Bracket may be mounted to the bottom or top of a surface and may be used right side up or upside-down. **See Fig.1.** Assemble the desired couplers as described in the coupler instructions (Coupler may be placed in top or bottom of draft gear box). In some cases surrounding edges may have to be trimmed out to allow for the swinging of the Coupler and Draft Gear Box, especially on tight 18" radius curves.

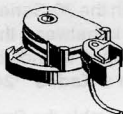
4. To assemble the coupler brackets, remove the die-cast components from the runners. Note: always bend or break towards the flat or smooth side, opposite the stepped side of the die-cast gate (the gate is where the part and runner connect) which will result in a cleaner break. **See Fig.2.**

5. Place the Swing Bracket, flat side down, on a smooth surface. Place the Steel Torsion Spring over the post with the vertical legs pointing up and straddling the pie shaped area in the bracket. **Use care** as the tips of the Steel Torsion Spring are sharp enough to puncture a finger. Slide the Forked Assembly Tool from the back to the front with post between the fork prongs. Keep the tool down flush with the top of the bracket as you slide it. The tool will spread the legs of the Steel Torsion Spring. Slide tool until it indexes into the back of the bracket. Holding tool down, in position, slip the Swing

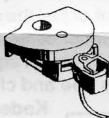
Swing Bracket mounted in standard upright position, on top of mounting surface



Swing Bracket mounted in standard upright position, under mounting surface



Swing Bracket mounted in upside down position, under mounting surface



Swing Bracket mounted in upside down position, on top of mounting surface

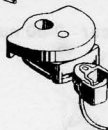


Fig.1

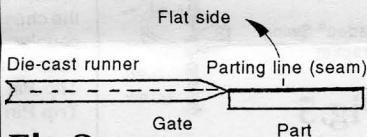


Fig.2

Bracket Cover Plate (pie shaped part) over the post and down against the assembly tool. Be sure Cover Plate is between the Steel Torsion Spring legs, see

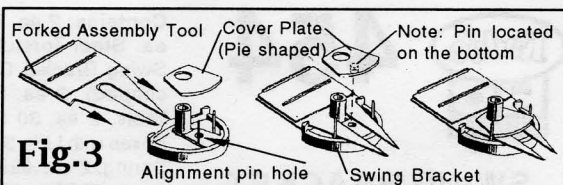


Fig.3. Pressing down on the Cover plate, pull Forked Assembly Tool out, allowing the Cover plate to drop into bracket. Be sure to carefully fit the alignment pin on the Cover Plate into the small hole in front of the brackets post.

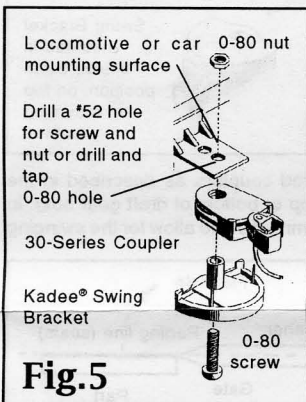
Note: the Cover Plate must fit flush with the front and rear edges of the bracket, capturing the Steel Torsion Spring in the proper position. It may be necessary to use pliers to press the lid down properly. The fit is purposely tight to keep Cover Plate in place. **See Fig.4.**



6. The Swing Bracket is now ready for use with coupler. **Note:** when separating the 30-Series Draft Gear Box parts from the runner, cut only the gates from the runners, particularly the flat side of the Coupler Lid, since the angled side of the Lid forms the Torsion Spring stops.

7. With the 30-Series Coupler Draft Gear Box assembled, slide it down over the pivot post, in-between the spring legs, making sure it is free to swing back into center position. If it binds because of a tight hole, carefully drill out hole with a #44 (.086") drill in a **Kadee® '240 Pin Vise.**

8. Assemble the Swing Bracket to the coupler mounting surface, using the size 0-80 x 3/8" round head screw and nut or just the screw, as shown in **Fig.5.** Align and center the coupler to the locomotive or car centerline by adjusting the Swing Bracket. If the 30-Series box is too thick, lightly file an equal amount from each side until the bind is relieved and the box swings free and clear to the center. Use a small amount of **Kadee® '231 Greas-em** graphite lubricant.



9. Test for correct height using the **Kadee® '205 Coupler Height Gauge.** If the coupler is too high, first check to make sure the chassis is not bent by laying a straight edge along the sides and observe if the top edges of the ends of the chassis are straight and even where the chassis and weight joins. If they are not they can, with care, be bent straight. Should the coupler still be too high, use one or more of the round metal washer shims stacked together between the chassis and the Swing Bracket to lower the coupler. Then repeat step #9 again, until the coupler is the correct height. Next, adjust the Trip Pin if necessary using the **Kadee® '237 Trip Pin Pliers.**

10. Assemble the locomotive or car and observe if there is any interference between the Swing Bracket /Coupler assembly and the coupler opening. The opening may have to be trimmed to allow the bracket and coupler to swing freely.

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