screw "C" thru small end and screw into previously drilled front hole, See Fig.\*7. While holding coupler straight tighten the screw. The coupler should be straight when released. If not, loosen screw and push spring in needed direction while retightening. Repeat until coupler is straight, then tighten screw "B".

- 8. Test centering action by pushing coupler to either side and releasing. Coupler should re-center itself. If not, check for burrs or a bind in the screws.
- 9. Reinstall pilot on engine and secure with screw "A".



Fig#7 Centering Assembly

### Rear Coupler Installation:

- 10. Remove screw holding coupler in place and save it. Installation is similar to that for rolling stock.
- 11. Assemble Kadee® Coupler and Gear Box. Place Coupler Assembly in position on truck drawbar and mark the new screw hole location. Remove and drill a 3/32" hole using a small hand drill. Be careful not to drill into underside of locomotive, protect with small block of wood under drawbar.
- 12. Secure new Kadee® Coupler with the original screw. Place loco on a section of straight track and check coupler height with Kadee® Coupler Height and Multi-Purpose Gauge \*829 for #1-Scale or \*880 for G-Scale. If too high, or too low, loosen screw and slip one of the supplied white plastic .010" shims between the gearbox and drawbar, either in front of or behind the screw to adjust coupler.
- 13. If you prefer to mount the coupler closer to the loco, simply cut the desired amount off of the drawbar and move back the mounting hole accordingly.

Made in the U.S.A.

# MAGNE-MATIC COUPLERS MOTES

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☐ 1790 #1 Scale ☐ 790 G Scale

Coupler Conversion for LGB® FORNEY



## This Conversion Kit contains the following:

One FRONT Kadee® Coupler Conversion

- 1- Coupler (slight off-set)
- 1- Coupler Adaptor Plate (see Fig.\*1)
- 1- Hole Drilling Template (see Fig. \*2)
- 1- Screw \*2 x 1/4" pan head phillips (silver)
- 1- Trip Pin Centering Spring (see Fig. 6)
- One REAR Kadee\* Coupler Conversion
- 1- Draft Gear Box and Lid
- 1- Coupler (large off-set)
- 3- Coupler Centering Springs
- 1- Knuckle Spring
- 1- Screw \*2 x 3/8\* flat head phillips (black)
- 2- Shims white plastic .010\*

Suggested TOOLS: For installation you will need: small hand drill, 1/16" and 3/32" drill bits (you may find a pin-vise helpful), small phillips screwdriver, tweezers, rigid back hobby saw (fine toothed hacksaw will work) and a small file.

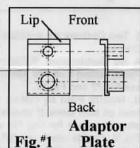
Please read instructions all the way through before proceeding.

#### INSTRUCTIONS:

First, find suitable soft clean padding to lay engine on. Be extremely careful in handling and working on loco to avoid breaking off fragile pieces or damaging protruding parts such as whistle, headlights or smoke stack.

## Front Coupler Installation:

1. Place engine on its side and remove screw A, see Fig. 2. The pilot can now be removed by pulling down on it. To detach old coupler, unscrew Screw "B". Save screws to be reused.



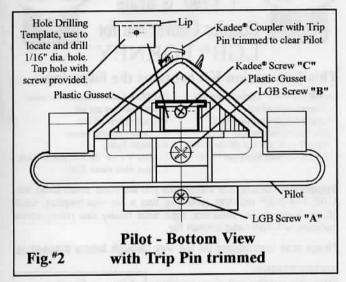
2. Use the Hole Drilling Template, see Fig.\*2, to drill a hole into the underside of the coupler pocket. Slide the template into place carefully, as shown in Fig.\*2, between gussets with lip down. Hold template in place so it can not move. Take a 1/16" dia. drill bit and mark hole location with a counter sunk dimple by twisting drill a few

turns into the plastic. This will provide a dimple to start hole.

Accuracy is important here. Remove Hole Drilling Template and discard.

3. Drill hole through bottom of coupler pocket, using dimple to start and guide drill. Use a 1/16" dia. drill bit with a small drill or pin vise.

4. Take silver self tapping "screw "C" and slowly screw in, keeping screw straight, until it bottoms out, then back out screw. Remove any filings or burrs from coupler pocket.



Two Options are available to you for installation of the front Pilot Coupler.

A. No Modification of Pilot requires trimming Kadee® Coupler Trip Pin by cutting it off just above Pilot base to clear pilot. For reference see Fig.\*2 and Fig.\*3.

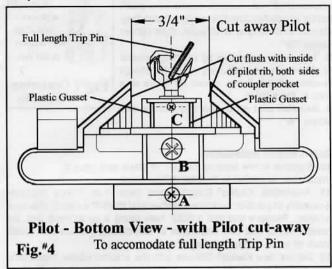
B. Modify Pilot by cutting away Pilot base on both sides of coupler pocket to allow clearance for Trip Pin swing. See Fig.\*4. Decide which you will use.

A Option: Cut off bottom part of Kadee® Coupler Trip Pin with a fine toothed modelers metal saw, leaving at least 7/32" but not more than 1/4" from bottom side of coupler head. See Fig. 3.

B Option: To accept the Kadee® Coupler with full length Trip Pin the LGB pilot will have to be modified. With a fine toothed



modelers saw, cut away front tip of Pilot Base. Be careful not to damage the pilot, see Fig. 4. Clean up any burrs with a fine file. This should leave a gap of 3/4", enough for the Trip Pin to swing freely.



6. Now you are ready to attach the "front" Kadee® Coupler to the Pilot. Begin by grasping the Adaptor Plate, Fig.\*5, from the "front", with the large lip at front down, hubs up. Slide plate half way into coupler

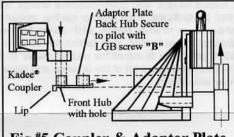


Fig. \*5 Coupler & Adaptor Plate

pocket. Take Kadee® Coupler and push round hole of coupler shank onto hub. Next, slide assembly all the way in so lip is flush with pocket edge. Hold coupler in place by replacing LGB screw "B" and partially tightening. Leave screw loose until after front screw "C" is in place and tight.

7. Using tweezers, take Trip Pin Centering Spring, see Fig.\*6, and slide larger open end over Trip Pin and place \*2 x 1/4" pan head

