SUBJECT: MGM BRAKES e-STROKE® SPRING BRAKE “PIGGYBACK” REPLACEMENT PROCEDURE

(See components shown in Fig. 2 for the following procedure)

SPRING BRAKE (TANDEM UNIT) PIGGYBACK REPLACEMENT PROCEDURE

1.0 Place chocks under the vehicle’s wheels to prevent vehicle from rolling.

2.0 DO NOT remove e-STROKE equipped spring brake from vehicle.

3.0 Following the manufacturer’s recommended procedure, manually release or “cage” the spring brake (refer to Section 2 of the MGM Service Manual for your chamber).

4.0 Exhaust air from system, then disconnect air lines from piggyback.

5.0 With the parking side caged, manually adjust the slack adjuster and yoke away from the service side non-pressure chamber (NPC) approximately ¼- to ½-inch (Fig. 1). This slightly compresses the internal return spring, ensuring the e-STROKE components stay in their correct keyed position.

IMPORTANT NOTE: Always use proper procedure when backing off any automatic slack adjuster (see manufacturer’s recommendations).

6.0 Record position of the clamp band ears and air ports.

WARNING: DO NOT use vise-grip pliers to grip and lock the push-rod in place. This may damage the e-STROKE components and void your unit’s warranty.
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7.0 Remove clampband nuts and clampband, then separate piggyback and service diaphragm from the tandem unit. Discard piggyback according to recommended guidelines found in MGM Brakes Form No. P1296.

IMPORTANT NOTE: To maintain the accuracy of e-STROKE calibration, use only an MGM Brakes Piggyback “Plus” Kit for the same model and stroke unit which includes a new clampband, diaphragm and piggyback with the same part numbers as those which were removed.

8.0 Before installing new piggyback, inspect all visible service chamber components for damage. If the return spring, non-pressure chamber and/or push-rod plate are severely worn or damaged, replace the entire e-STROKE equipped tandem unit (spring brake).

9.0 If service chamber components are still functional, install new piggyback by positioning new diaphragm into the bottom recess of new piggyback, then align piggyback with non-pressure (service) chamber.

NOTE: Make sure air-inlet ports are properly aligned to mate with vehicle’s air supply lines from 6.0.

10.0 Install new clampband with new nuts and bolts to position from 6.0. Tap the clampband around its circumference while tightening the clampband nuts to ensure proper seating. Tighten nuts in 5-10 Lbs.-Ft. increments up to 30-35 Lbs.-Ft. of torque.

11.0 Manually adjust slack adjuster back to within vehicle manufacturer’s specifications.

12.0 Reconnect air lines (up to 30 Lbs.-Ft. of torque) to piggyback and apply air pressure, then check for air leakage at the air fittings. If bubbles appear, tighten fittings slightly, but not over 30 Lbs.-Ft. of torque. If a leak is detected around the circumference of the clampband, release air from unit, loosen clampband nuts, then firmly tap around the circumference with a plastic hammer or rubber mallet while alternately tightening the clampband nuts in 5-10 Lbs.-Ft. increments to 30-35 Lbs.-Ft. of torque. Reapply air and check again.

NOTE: Use only soapy water or leak detection solution (NEVER USE ANY TYPE OF OIL) to inspect for air leaks.
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13.0 Exhaust air pressure from the service chamber while maintaining line pressure in the spring brake (parking brake), then remove release bolt and re-install weatherseal cap.

14.0 Perform brake stroke status test, per MGM e-STROKE Driver’s Guide, Form 5066.