ELECTRIC DRUM BRAKE BREAK-IN PERIOD

TI-086

AXLES AND SUSPENSION

Purpose

This document describes the break-in procedure for electric drum brakes. The break-in period is a typical phenomenon with drum brakes and especially electric drum brakes. Electric drum brakes will require a break-in period to achieve full performance. This break-in period applies for new axles and any time new brake shoes and/or magnets are installed as part of regular maintenance. This break-in period not only seats the shoe lining material but also seats in the brake electro-magnets. During the break-in period, the linings will wear at a faster rate than they do after they are seated in.

Lippert Components recommends using one of two methods. A standard burnishing procedure and a more aggressive, time-saving procedure are outlined in this document. Please choose the method that suits your personal comfort level to effectively complete the process.

Standard Burnishing Procedure

This method utilizes a lower speed. However, a minimum of 40 mph is required for burnishing of the brakes.

NOTE: This method will need 20 to 50 brake applications. Brakes can be seated in by applying approximately 8-10 volts to the trailer brakes at an initial speed of 40 mph and allowing the tow vehicle/trailer combination to slow down to 20 or 25 mph.

⚠ CAUTION

Perform all burnishing of brakes at posted speeds.

1. Turn the GAIN on the trailer brake control to the maximum level.

⚠ CAUTION

Check hitch connection, electrical connections, sway bars and connect breakaway cable.

2. Proceed at driving speeds up to 40 mph.
3. Move the slide mechanism on the brake controller to apply 8 to 10 volts to the trailer brakes, allowing the tow vehicle to slow down to 20 or 25 mph.

NOTE: For maximum effectiveness, do not use tow vehicle brakes or exhaust brakes during this period. The trailer brakes will seat in faster by using only the trailer brake to stop both tow vehicle and trailer.

4. Release the slide mechanism on the brake controller.
5. Continue down the road applying the brake controller as detailed above at one-mile intervals.

NOTE: Driver should feel a noticeable difference in the brake performance during this period, sometimes in as few as 10 applications.

6. Use best judgment to determine brake performance after 20 to 50 applications of the procedure. After brakes feel like they are well seated, pull over at the next exit or any safe location to check the status of the procedure.
7. The brake/axle area may be showing smoke from the procedure and the area around the brakes should be hot.

⚠ CAUTION

Do not touch the brake drum directly but hover a hand around the area.

8. If available, use a temperature gun to determine that temperatures are between 350 and 400 degrees, or verify that the area is hot with a hand check.
9. If there is no smoke or the heat has not achieved the proper temperature or the area can be touched with a hand, perform the procedure again as directed above.

NOTE: If the brake drum is cold to the touch the brake drums may not be adjusted properly or there may be a wiring concern.

NOTE: After 50 applications, the brake lining material will be fully cured from the heat and develop close to 100 percent contact with the brake drum surface.

More Aggressive Burnishing Method For The Skilled Technician

⚠ CAUTION

Perform all burnishing of brakes at posted highway speeds.

1. Turn the GAIN on the trailer brake control to the maximum level.

⚠ CAUTION

Check hitch connection, electrical connections, sway bars and connect breakaway cable.

2. Drive at highway speeds of 60 to 70 mph, not exceeding posted speed limits.
3. Move the slide mechanism on the brake controller to apply the trailer brakes while maintaining the posted highway speed without locking up the trailer brakes.

⚠ CAUTION

Driving conditions should be favorable for this activity; i.e. dry pavement, low traffic flow, etc.

4. Continue with trailer brakes applied and maintaining the posted speed limit for one-half mile.
5. Release the slide mechanism on the brake controller.
6. Pull over at the next exit or any safe location to check the status of the procedure.
7. The brake/axle area may be showing smoke from the procedure and the area around the brakes should be hot.

⚠ CAUTION

Do not touch the brake drum directly but hover a hand around the area.

8. If available, use a temperature gun to determine that temperatures are between 350 and 400 degrees or verify that the area is hot with a hand check.

9. If there is no smoke or the heat has not achieved the proper temperature or the area can be touched with a hand, perform the procedure again as directed above.

NOTE: If the brake drum is cold to the touch the brake drums may not be adjusted properly or there may be a wiring concern.

NOTE: When burnishing has been performed successfully, the brake lining material will be fully cured from the heat and develop close to 100 percent contact with the brake drum surface.