BRAKE OPERATING TEMPERATURE GUIDELINES

QR-159

AXLES AND SUSPENSION

Purpose

This document provides brake and disc brake temperature ranges and guidelines. A link for a Lippert video on how to burnish trailer brakes is included.

Safety

⚠ CAUTION

The "CAUTION" symbol above is a sign that a safety risk is involved and may cause personal injury and/or product or property damage if not safely adhered to and within the parameters set forth in this manual.

⚠ CAUTION

Always wear eye protection when performing service, maintenance or installation procedures. Other safety equipment to consider would be hearing protection, gloves and possibly a full face shield, depending on the nature of the task.

Drum Brake and Disc Brake Guidelines

Lippert drum brake systems are designed to withstand extreme temperatures. Using the brakes to slow down a trailer will convert friction between the brake linings and brake drum into heat. Brake heat is normally expected on a properly-functioning brake. A cold brake means it is not working or being used. If a brake is malfunctioning and running excessively hot, this can be evidenced by smoking brakes or the paint burning off the brake drum leaving the outer drum surface white in color.

Brake heat, if you are going to measure, should be measured on the outer surface of the brake drum that covers the brake lining material. Use an infrared, touchless thermometer. The outer surface of the brake drum where the brake heat is being dissipated will be the hottest point.

Drum brake temperature guidance (°F):

- 100° - 450° – Operating normally.
- 450° - 600° – Top of working range, brake performance can begin to fade at upper part of range.
- Over 650° – Extreme heat from brakes dragging or being excessively worked like going down long grades. Mechanical damage can occur in this range and result in complete loss of brakes.

Disc brake temperature guidance (°F):

NOTE: Measure in middle of rotor surface where brake pads contact.

- 100° - 800° – Operating normally.
- 800° - 1300° - Top of working range, brake performance can begin to fade at upper part of range.
- Over 1500° - Extreme heat from brakes dragging or being excessively worked like going down long grades. Mechanical damage can occur in this range and result in complete loss of brakes.

Link to Lippert's video on how to burnish trailer brakes: https://www.youtube.com/watch?v=d9HDloz9fq8