Brake Drums

How do they work?

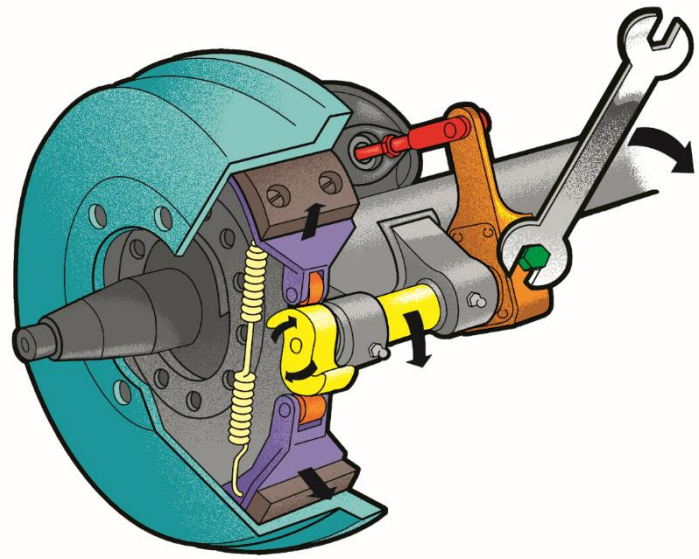
Brake drums create the friction required to stop the wheels and dissipates the heat into the atmosphere.

When the brake is released, the pushrod is at the back of the chamber. The s-cam is rolled back and the brake lining does not contact the drum. Properly adjusted brakes will use the upper half of available pushrod stroke.

Brakes out of adjustment will be using the lower half of available pushrod stroke. However, drivers may not notice a change in braking capacity under normal operating conditions. With increased lining to drum clearance, the pushrod stroke is longer. The application is more than ½ of the available stroke.

How do they apply to my driving?

The drum condition is critical to proper operation of the brakes.
You should always check the brakes for cracks and excessive wear and that they are adjusted correctly.



When adjusted incorrectly (cold drum): With normal brake application pressures this brake will seem to be effective.
When adjusted incorrectly (hot drum): Brake fade occurs partly from component expansion and from reduced brake co-efficiency between the lining and the drum. Cast iron drums expand when heated requiring pushrods to stroke further. Eventually the chamber can bottom out which creates a total loss of brakes.

Check with your employer about brake adjustments. It is important to have a functional understanding of how brakes are adjusted, and how to recognize if brakes need to be adjusted before putting equipment into service.