Examination and functional testing of UP 9708 horn sequencer and alerter

12/9/14

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UP 9708, a locomotive from the same series as the UP 9707, which is a General Electric, freight locomotive, model number C44-9W, 4380 horsepower, diesel electric, built in 1994. This unit is a 6 axle, 2 truck locomotive powered by six DC Motors. UP made this test locomotive available for examination in Houston, Texas. A pool crew of 1 conductor and 1 engineer was called for 0600 CST on 12/9/14 and positioned the locomotive on the Terminal Subdivision at Mesa Crossover (MP 355.2).

After boarding the locomotive, introductions and job briefings, the locomotive crew proceeded onto the Lafayette Subdivision at about 1100. The following examinations and functional tests were conducted:

- The horn sequencer was activated by the sequencer foot pedal located under the engineer's control stand at various speeds under 70 mph. The sequencer sounded the standard crossing horn cadence (long, long, short, long) continuously until the sequencer foot pedal was again depressed, which stopped the horn cadence.

Figure 1-Horn Sequencer Pedal on UP 9708 (Circled in yellow)

- The horn sequencer was activated by the sequencer foot pedal at 70+ mph and the equipment reacted in the same way, that is, it continued to sound the standard horn cadence until the foot pedal was again depressed.
- While in forward motion and with the horn sequencer activated, the locomotive controls were not moved for more than two minutes to determine if the alerter would alarm. It did not.
- While in forward motion with the horn sequencer not activated, the locomotive controls were not moved for more than two minutes until the alerter alarmed.
    - With the alerter beginning the alarm cycle, the horn sequencer was activated to determine if it would reset the alerter. It did.
- While in forward motion with the horn sequencer not activated, the locomotive controls were not moved for more than two minutes until the alerter alarmed.

- The alerter was not reset to determine if the alerter functioned as expected and applied the air brakes. It did.
- While in forward motion with the lead axle sand activated (this is an on-off switch and can be left on indefinitely) and with the horn sequencer not activated, the locomotive controls were not moved for more than two minutes to determine if the alerter would activate with lead axel sand activated. The alerter activated.
    - The manual sand (all locomotive axles) was depressed to determine if the manual sander would reset the alerter. It did.

During the trip, several digital images were taken and the horn sequencer was recorded and provided to NTSB's recorder specialist.

The examination and functional testing was completed and the group debarked from the locomotive at Dayton, Texas (MP 328). Mr. Carter completed an event recorder download and will email the data to NTSB.