



New hotbox-detector testing facility at Pueblo will initially check out seven detector types from four suppliers and one railroad.

TTC tests hotbox detectors

A new generation of "new and untried" equipment is sending hotbox detectors back to the test track, if not to the drawing board. First tests will zero in on single-axle cars.

Systems for detecting overheated bearings have been around for years. So why is the Transportation Test Center now running controlled-environment tests using seven different types of hotbox detectors?

The "why" has less to do with the detectors themselves than with new types of trucks that have been introduced, trucks and car types falling under the so-called "new and untried design" classification.

These new designs are aimed at improving equipment performance. What the engineers at Pueblo want to determine is whether overheating of bearings on the "new and untried designs" is detectable to the same extent it is with the standard three-piece truck.

The seven detectors installed for the initial series of tests are the General Electric design, the General Railway Signal WTSU-1, Servo 7707D, Servo 8909, Servo 9000, Harmon WC 032, and Norfolk

Southern Mark I.

These seven apparently are the designs most commonly in use and were chosen because the industry wanted to move ahead rapidly with the test program. Five or six other types of detector may go in for test later, and the track site at Pueblo also has space available for installation of up to three new types if any are developed. One such future possibility: a sonic detector now under development by two suppliers working with a western railroad.

Testing of the facility itself was under way last month, this involving installation of the units and the determination that they're functioning properly with known bearing temperatures. Engineers were hoping to have the actual physical test procedures completed by the end of October, with the final tabulation of comparative results then to be available by around the end of November.

In this series, TTC is testing only cars

equipped with roller bearings, comparing detector-read between standard three-piece trucks and certain single-axle trucks.

Tests will involve cars equipped with both 28-inch and 36-inch wheels. In the procedure developed, an electric coil with thermostat control is installed around each bearing; an ontrain generator provides power for the coils to heat the bearings to pre-determined temperatures.

The Association of American Railroads is funding the testing and evaluation. In addition, Trailer Train has supplied equipment, some of the detectors have been furnished by suppliers and railroads, and some suppliers have also donated supervisory-employee time in connection with installation and certification of the units.

After the testing is completed and the statistical work put in final form, results will be made available to interested parties. Each manufacturer will also get a report on his design. ■