

## Portable Track Loading Fixture (PTLF)



Portable, easy-to-use lateral strength testing for railroad crossties and fastening systems

The Portable Track Loading Fixture (PTLF) is an easy-to-use, manually operated track inspection tool designed to test the lateral strength of railroad crossties and fastening systems. The PTLF applies the 4,000 pounds of lateral force necessary to measure changes in gage under load and can be used as part of a routine inspection or to test the effectiveness of repairs after the performance of corrective actions. Originally developed as a data quality assessment tool for the Federal Railroad Administration's (FRA) Gage Restraint Measurement System (GRMS), the PTLF provides objective strength data that correlates with the full-size GRMS.

### Flexibility in track loading

When used as a supplement to GRMS testing as described in the Federal Track Safety Standards, the PTLF is a highly effective tool for detecting potential track safety hazards due to weak crossties and fasteners. The PTLF allows field personnel to inspect the quality of track maintenance and monitor track degradation by giving them the power to load the track at virtually any point of interest.





### Portable design, high impact results

The PTLF is distinguished by its portability and ease of use. The collapsible design makes it convenient to store and easy to transport and deploy in the field. Although it is small in stature, the PTLF reliably provides a 4,000-pound test load and can be used to complete testing in less than one minute.

Over 700 units are currently in use with railroads, the FRA and commercial service providers. The PTLF is sought after for its key features:

- Total weight of 23 pounds
- Durable, stainless steel construction ensures long service life
- Insulated design will not shunt track signals
- Instructions provided on each unit



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**Federal Railroad Administration, Office of Research and Development**

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