Intercomp
advanced weighing technology . . . by any measure

• Application Note •

Weigh-in-Motion

Screening for Enforcement

Pre-Selection on I-84 in Oregon, USA

Weigh-In-Motion (WIM) information is used when screening for enforcement or pre-selection prior to diverting vehicles for static weighing. In the United States, static weights are used for direct enforcement, and direct data comparisons demonstrate the performance of strain-gauge based WIM sensors to static scales utilizing the same highly accurate technology.

When comparing GVW accuracy of WIM to static scales, Oregon DOT was "…quite impressed with the numbers, especially considering the time of year and condition of the roadway."

The sensors are installed in the traffic lane with two rows (4 total sensors) per lane. Vehicles crossing the WIM site are diverted to static scales downstream for measuring GVWs. This analysis was conducted with data from the mountains during winter (December).

Comparison of the Class 9 (5 axle) vehicle data shows GVW performance of ±3.6% error at highway speeds compared to static scales, well within COST 323 A(5) and ASTM 1318 Type III requirements.

Intercomp sensors are installed in channels cut in existing roadways, and can be integrated with a variety of electronics platforms and software. The sensors utilize similar strain gauge technology which is used in static weighing applications.

The WIM Strip Sensors are used for low- and high-speed (LS-WIM and HS-WIM) applications throughout the world.

Weigh-In-Motion Strip Sensors

- Strain Gauge Load Cell Sensors in a Minimally Invasive Enclosure for Quick Installation
- Weigh Vehicles at Speeds up to 80 mph (130 km/h)
- Designed to Comply with COST 323 & ASTM E1318-09
- Used in Screening, Enforcement, Data Collection, Tolling & Ports WIM Applications

La Grande, Oregon WIM Site in I-84 Mainline

Four WIM sensors are installed in two pairs in traffic lane

WIM Sensors are upstream of Static Scale site