

A BREAKTHROUGH IN TECHNOLOGY ESTABLISHES THE MOST IMPORTANT NEXT STEP FOR IMPROVING HEAVY VEHICLE HIGHWAY SAFETY

This paper describes the highway safety benefits of the Precision Steer Wheel Control Technology (HPCS System) that was **used in the Pilot Test Of Fatigue Management Technologies** conducted by the Federal Motor Carrier Safety Administration.

The following excerpts were taken from The Tech Brief prepared by the Federal Motor Carrier Safety Administration and Transportation Research Board (TRB) Paper #05-1234.

“Among all FMT technologies deployed however, drivers were significantly more enthusiastic about the benefits of the Howard Power Center Steering® and Safetrack®....” (FMCSA Tech Brief)

Heavy Vehicle stability and control problems contribute to the “work” of driving a truck, inducing fatigue due to the often continuous amount of driver steering corrections needed to counteract the unstable behavior of the castered truck wheels. The physical workload associated with “fighting” the steering wheel to maintain directional control is particularly fatiguing to neck and shoulder muscles. There was a need to determine whether a technology that lessened this physical workload on drivers would result in less fatigue. The technology that best fulfilled this requirement and was tested in the pilot study was the Howard Power Center Steering system.” (Precision Steer Wheel Control System). (TRB Paper #05-1234)

The Amazing Heavy Vehicle Operational Problems That Are Solved By The Howard Precision Steer Wheel Control System

There are two outstanding new systems that are designed to make the highways a safer place to be. They are the electronic stability control system that prevents fatal roll-over accidents, and the second system, The Howard Precision Steer Wheel Control System, that is designed to greatly reduce driving fatigue, thereby preventing driving fatigue related heavy vehicle highway accidents.

The Howard Precision Steer Wheel Control System makes heavy vehicles directionally stable that assists the driver when going straight, by doing away with tedious driver steering corrections required to keep a heavy vehicle tracking straight and under control, thereby doing away with the major source of heavy vehicle driving fatigue, and related highway accidents.

- The Howard Precision Steer Wheel Control System achieves an all new level of steer wheel tire blowout controllability, verified by numerous documented steer wheel blowouts where drivers report easy vehicle controllability, without the steering wheel fight.
- The Howard Precision Steer Wheel Control System makes a major improvement in crosswind drivability, by preventing the steer wheels from caster steering downwind, in response to wind gusts.
- The Howard Precision Steer Wheel Control System completely eliminates the troublesome road wander problem that is responsible for a major amount of driving fatigue.
- The Howard Precision Steer Wheel Control System does away with steering wheel pull on crowned or slanted roads, that is caused by steer wheels castering to the low side of the road.
- **The Howard Precision Steer Wheel Control system solves the costly long standing steer wheel premature tire wear problem, saving heavy truck and bus operators millions of dollars in operating expense that will pay for the new technology many times over.**

**River City Products of San Antonio Texas is the dominant patent holder of Heavy
Vehicle Precision Steer Wheel Control Technology**