Wabtec CORPORATION

DATA SHEET

TRIP OPTIMIZER™

Smart Cruise Control for Trains

SAVE FUEL + IMPROVE TRAIN HANDING

Trip Optimizer™ is a smart cruise-control system for trains that takes into account terrain, train make-up, speed restrictions and operating conditions to calculate an optimum speed profile. It then automatically controls locomotive throttle and dynamic brakes to reduce fuel burn and provide efficient train handling.

With Trip Optimizer, trains run on time, operate more smoothly, and use fuel more efficiently – resulting in fuel savings and corresponding emissions reduction.

1.3
Million liters of fuel saved every day

1.2+
Billion auto kilometers operated

QUICK FACTS

Closed-Loop Auto Control of throttle and dynamic brakes with constant operator supervision

Individual trip plan for each train over a given territory

Platform independent software enables deployment across all locomotive platforms

New features like SmartHPT to save even more fuel

>1.2 billion auto kilometers operated; ~1.3 million liters of fuel saved every day

ADVANCED FEATURES AND FUNCTIONS

Advanced Train Handling
Trip Optimizer features algorithms that provide significant enhancements to train handling by predicting in-train forces real time and making adjustments to control them.

LOCOTROL® Integration
Provides automatic control of LOCOTROL independent mode, enabling smooth, consistent train handling for longer and heavier trains.

SmartHPT
Optimizes train performance for a given horsepower per ton target, driving incremental fuel savings.

Air Brake Advisement
Plans where air brake is required and, based on real-time monitoring, prompts the operator for air brake application and release.

Integration with Automatic Train Protection
Automatically adjusts to real-time network changes based on signal and speed restriction updates to provide additional automation and fuel savings.

Network Pacing
Combining Trip Optimizer with Movement Planner allows for pacing, which redistributes and optimizes the meet slack time on the line. Railroads that pace trains across the network achieve incremental fuel savings through reduced fuel burn en route.

Auto Air Brake Control
Adds starting and stopping to the operating envelope and allows Trip Optimizer to apply air brakes as needed, increasing the envelope during which Trip Optimizer operates for increased fuel savings.

FOUNDATION FOR FUEL OPTIMIZATION

Trip Optimizer is the foundation for fuel optimization. Starting with intelligent cruise control, it can be modularly expanded to add higher levels of automation and fuel efficiency–enabling scalable sustainability.

BENEFITS & OUTCOMES

Sustainable Fuel Savings
Up to 30% fuel savings for the Trip Optimizer suite; EPA-certified for 15% fuel savings

Emissions Reduction
Up to 30% based on fuel savings, plus potential for emissions credits

Efficient Train Handling
Minimizes in-train forces

Consistent Velocity Performance
Eliminates unnecessary acceleration and deceleration

Reduces Wear & Tear
Reduces deterioration of the locomotive and track through better train performance

Enhanced Train Automation
Provides the foundation for increased train automation, including application and release of air brakes and auto operation from start to stop

CONTACT

Wabtec Corporation
30 Isabella Street
Pittsburgh, PA 15212 - USA
Phone: 412.825.1000
Fax: 412.825.1019

WABTECCORP.COM