Haldex Reliability Contributes to Superior Performance of Winnipeg Transit Fleet

The superior performance of the Haldex DRYest air dryer keeps the City of Winnipeg Transit up and running in spite of extreme temperatures and high humidity.

Prior to Winnipeg’s introduction to Haldex in 1992, the fleet experienced drastic drops in performance, even stalling, when the weather turned cold. And, when you’re running an average of 190,000 people around each day, you want a reliable air brake system.

Priding themselves on their timeliness and safety, Winnipeg couldn’t change the climate. Rather they combined the Haldex DRYest air dryer with the Consep Separafer/Condenser. Today, you can find 318 of the Winnipeg buses equipped with the Haldex air treatment system, with an additional 62 air dryers to arrive before the end of the year.

"By using Haldex air treatment products, and having a good preventive maintenance (PM) program in place, we have no bus downtime problems attributed to the air treatment system,” says Guy Fontaine, Diesel Bus Technician. With cold winters accumulating substantial amounts of snow, and lasting nearly six months, the fleet's air brake system is always reliable. And, the extreme temperatures and humidity of Winnipeg, typically ranging from -30°C to 40°C, don’t get in the fleet's way either.

The City of Winnipeg Transit operates 535 buses, averaging 86,000 kilometers, nearly 54,000 miles daily, while operating an average of 4,450 hours each day. At the rush hour peak, there are 440 buses on the road, both morning and afternoon. With routes varying from day to day for each bus, they are exposed to different duty cycles.

"Because we expose our fleet to severe duty cycles, we maintain them with good PM programs, using an ABC inspection process to prevent downtime:"

A Inspection is a 3000-kilometer check focusing on brakes, steering, suspension and lighting.

B Inspection is a 12,000-kilometer check allowing required fluid changes and brake, suspension and steering inspections to take place.

C Inspection is a 48,000-kilometer extensive inspection of the entire vehicle from front to back.

"We value the PM programs that we have created because reliability is so important to us,” explains Fontaine. "And, this predictability benefits our PM Program.”

Winnipeg’s PM Program

Since reliability and safety are the goals of the Winnipeg fleet, their PM program is as comprehensive and rigid as the daily bus routes.

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The Multi-Treatment Cartridge (MTC) in the DRYest undergoes a scheduled PM in the Winnipeg fleet every three years or 180,000 kilometers. The five-stage MTC cleaning system uses desiccant beds to minimize the risk of water or contaminants getting into the brake system. While removing water and contaminants, the desiccant provides exceptional airflow, reducing chances of corrosion and freezing problems. At this time, the body of the air dryer is also inspected for any corrosion from road salt and debris.

Emphasis on Transit
In addition to a comprehensive inspection process, Winnipeg has evolved its spec’ing procedures to include members from maintenance through operation of the fleet. New products are specified onto existing vehicles to maintain an "apples-to-apples" comparison. And, Fontaine tracks components in a database so it's easy to compare the past performance of an existing component to one being tested for the first time.

The team writes the bus spec and team members watch the bus actually being built. Then, Fontaine, as property inspector, determines if the bus is properly assembled. The property inspector's role is part of the quality control process of the bus manufacturer.

Since most product development in the heavy duty industry targets trucks, Winnipeg is especially pleased with the R&D that Haldex directs toward the transit industry.

“We have a tremendous amount of predictability since adding the Haldex DRYest air dryers,” ... “And, this predictability benefits our PM program.”

They've taken the time to help the transit market with products specifically developed for severe duty applications," says Fontaine. “There aren’t a lot of reliable products and producers of products for city transit systems. It's (Haldex) a unique manufacturer in that respect.”

The information for this article was provided by the City of Winnipeg Transit (Winnipeg, Manitoba) and published September 20, 2002.