

WASHINGTON METRO AREA TRANSIT AUTHORITY - CASE STUDY



INDUSTRY: RAIL (PASSENGER VEHICLE)

PRODUCT: PRIMARY SUSPENSION (CHEVON)

PROBLEM

- Premature failure due to excessive creep (settlement) of the chevron spring when installed onto bogie frame.
- Change out of springs due to failing within six months through lack of clearance between the journal box and side frame
- Failure also has adverse affect on other bogie components and irregular wheel wear.
- Frequent change out of springs has been costly.

SOLUTION

- Low creep rubber compound used to overcome excessive settlement in the chevron spring.
- Chevron made wider to accommodate more rubber in order to reduce deformation and excessive excursion of rubber.

BENEFIT

- Chevron spring life dramatically improved to meet original service life of ten years.

LIFE EXPECTANCY DOUBLED. TOTAL ESTIMATED COST SAVING OF \$1.6 MILLION.

VULCANITE

