

High Tension Cable Barrier

Background

This Bulletin is issued to inform maintenance contractors of the cable re-tensioning requirement for High Tension Cable Barriers (HTCB). HTCB systems are to be monitored every 6 months at the beginning of April and the beginning of October. MCIs shall determine the tension and evaluate whether an increase or decrease in tension is required to remain in the recommended tension range as per the manufacturer's recommendation. Tension charts are provided by the manufacturers based on ambient temperature – available on the manufacturer's website or by contacting the manufacturers. An adjustment, typically a tightening up in spring and a loosening off in fall, may be required in preparation for the extreme temperatures. Please note that the cables in all HTCBs on Alberta highways are "pre-stretched" and therefore do not need additional stretching however small adjustments in tension (either up or down) may be necessary to stay within the manufacturer's suggested range while temperatures rise and fall with the seasons. April and October were chosen as appropriate periods to prepare for the extremes of summer and winter however this timing can be modified at the discretion of the Operations Manager to suit the particular conditions in any given year or geographic location. Bi-seasonal tension adjustments are desirable to ensure that the HTCB continues to be in the tension range suggested by the manufacturer throughout the entire year. This range corresponds to the temperature range used in crash testing.

This will ensure the HTCB system

- will function as intended (tensioned to the proper ambient temperature); and
- is regularly inspected by the MCI's to ensure that the system is not damaged in any way.

Key Changes

Recommended practices previously referred to maintenance requirements as specified by the manufacturers, however no timelines were provided. This Bulletin highlights the recommended timeline for checking and adjusting the cable tension.

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References

Brifen (1-604-542-5500): <http://www.brifen.ca/>

Gibraltar (1-800-495-8957): <http://gibraltarus.com/en/highway-cable-barrier/nchrp-350-north-america>

Safence (1-330-477-4800): http://www.gregorycorp.com/highway_safence.cfm

Trinity (1-800-527-6050): <http://www.highwayguardrail.com/products/cb.html>

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