

## Advanced Fretting Protection for Underhood Connectors

**Application:** Water Pump

**Location:** China

### Challenge

Underhood connectors are exposed to micromotion vibration and/or thermal expansion due to heating or cooling cycles. These micromovements, known as fretting corrosion, wear down through the metal coatings into the base material and promote oxidation. The formation of this oxide layer can result in power failure or signal loss. A prominent Automotive OEM came to us in search of a grease that would protect their water pump connectors against fretting corrosion and ensure lasting, reliable connections.

- Can the grease protect against fretting while withstanding high underhood temperatures?

### Solution

**RHEOTEMP™ 769G**

A polyurea thickened, medium viscosity, synthetic hydrocarbon grease

- Fretting protection up to 18.7M cycles
- Wide temperature protection up to 175°C.
- Resists moisture
- Provides lifetime lubrication for lasting connections

### Results

We sent the customer samples of several of our leading connector greases. For most connector applications, we recommend NYOGEL® 760G. But for applications see temperatures above 135°C and must withstand more than 6.7M fretting cycles, an advanced grease is often recommended. After comparing our data with their in-house testing, the OEM decided to go with RHEOTEMP™ 769G as it offers the highest fretting protection of any grease offered at FUCHS and can withstand the temperatures of their application.

### Advantages

Protects against fretting

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Protects up to 175°C

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Resists moisture