

IMPROVING ANGULAR TORQUE IN STEERING COLUMNS

INDUSTRY:
Automotive

APPLICATION:
Steering Column

COMPONENT:
Control Module

LOCATION:
Texas



BACKGROUND

A prominent Automotive OEM had previously used a PTFE thickened gel on one of their customers Steering Column Module (SCCM) devices. This particular customer was releasing a new version of the SCCM and their engineers wanted to improve the lubricant's angular torque measurements and performance at -40°C. With the launch date of the new SCCM months away, the OEM turned to Nye to find a solution.

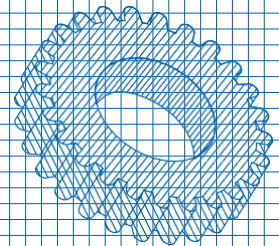
CHALLENGE

- Can the lubricant provide an angular torque reading of less than 150 mN and perform at -40°C?

SOLUTION NYOGEL® 741A

A soft, lithium soap thickened, medium viscosity, phenylmethyl silicone grease.

- Excellent wide temperature performance of -65 to 200°C
- Silicone improves product performance when little torque is available



RESULTS

Several Nye greases were tested within our research and development labs to determine which lubricant had the best torque and temperature performance. The customer was extremely pleased with our results and approved NyoGel® 741A for implementation in the updated SCCM device. Additionally, they also choose to replace the Fluorocarbon Gel with NyoGel® 741A in previous SCCM models.

Base Oil Properties	Conditions	NyoGel® 741A	Test Method
Chemistry		Lithium Soap / Phenylmethyl Silicone	
Temperature Range		-65 to 200°C	
Kinematic Viscosity	40°C	71.2 cSt	ASTM D-445
Viscosity Index		404	ASTM D-2270
Grease Properties			
NLGI Grade		1.5	ASTM D-217
Oil Separation	24 hrs, 100°C	3.5%	ASTM D-6184
Evaporation	24 hrs, 150°C	2%	NYE CTM

Since 1844: Our performance is reflected in the value we bring to our customers.

Nye Lubricants is a leader in the innovation, formulation and provision of synthetic lubricants, enabling and improving breakthrough products and critical new technologies. We bring proven experience, deep technical knowledge and customer focus to solve our customers' toughest challenges, adding tangible value to products in a wide range of industries and applications.

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