



REDUCE NOISE IN LUMBAR SYSTEMS

INDUSTRY:
Automotive

APPLICATION:
Actuator Motors in
Lumbar System

COMPONENT:
Gears



BACKGROUND

An automotive OEM that manufactures lumbar supports approached Nye with a new lumbar assembly. The new lumbar design was to become 'the next generation' of lumbar support assemblies for their operations. The company needed a grease to lubricate the gears of the small actuator motors that adjust the lumbar and bolster supports on high-end power front driver and passenger seats.

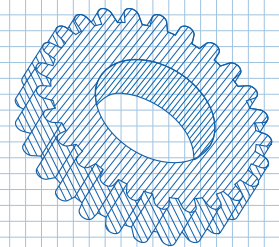
CHALLENGE

- Can the lubricant reduce cabin noise from actuators?
- Can the lubricant provide good low temperature torque?

SOLUTION RHEOLUBE® 365F

A lithium soap thickened, medium viscosity, hydrocarbon grease.

- Wide temperature performance
- Medium viscosity
- Reduces noise, vibration, and harshness (NVH) as well as start-up torque
- Rust-inhibited



RESULTS

Tests were run on several Nye products, including full environmental life cycle testing and acoustic verification throughout the life cycle tests. The company settled upon Rheolube® 365F as it provided them sufficient performance at both low and high temperatures and an overall reduction in NVH.

Base Oil Properties	Conditions	Rheolube® 365F	Test Method
Chemistry		PAO / Lithium Soap	
Temperature Range		-45 to 125°C	
Kinematic Viscosity	40°C	100 cSt	ASTM D-445
	100°C	14 cSt	
Viscosity Index		147.6	ASTM D-2270
Grease Properties			
Oil Separation	24 hrs, 100°C	2.4%	ASTM D-6184
Evaporation	24 hrs, 100°C	0.15%	NYE CTM
Low Temp Torque (-30°C, -40°C)	Starting Torque	384 g.cm, 826 g.cm	ASTM D-1478
	Running Torque, 10 minutes	153 g.cm, 321 g.cm	
	Running Torque, 60 minutes	120 g.cm, 294 g.cm	

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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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