

CONTROLLING MOTION IN CONSUMER ELECTRONICS

INDUSTRY:
Consumer Electronics

APPLICATION:
Photo Scanner

COMPONENT:
Spring-Driven
Mechanism

LOCATION:
United Kingdom



BACKGROUND

Controlling the ease of motion is often a challenge when designing and maintaining a quality electronic design. Motion control grease, also known as damping grease, is often a cost-effective solution to dampen motion while reducing noise and vibration. One of Nye's affiliates, was contacted by an electronic maintenance company who was in search of a motion control grease that would replace a discontinued lubricant they had been using. They needed to lubricate the spring mechanism that released the scanner's lid to slow the motion and prevent the device from closing too harshly.

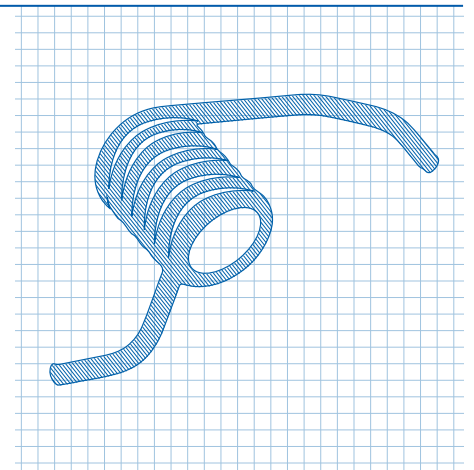
CHALLENGE

- Can Nye provide a stiff damping grease that will slow the closing of the heavy scanner cover?

SOLUTION PG-44A

A silica soap thickened, heavy viscosity, synthetic hydrocarbon grease.

- Extremely stiff and tacky grease
- Slows motion
- Eliminates noise, vibration, and harshness
- Provides a quality feel for user



RESULTS

Nye's affiliate recommended that the company use PG-44A from Nye's line of motion control greases. PG-44A gave the desired level of damping to the scanner cover and customer was extremely satisfied with the results. The feed table release/drop motion became a controlled action and helped improve the perceived value of the refurbished device.

Typical Properties

Base Oil Properties	Conditions	PG-44A	Test Method
Chemistry	–	Polybutene/Silica	–
Temperature Range	–	20 to 120 °C	–
Kinematic Viscosity	40 °C	192000 cSt	ASTM D445
	100 °C	4180 cSt	ASTM D445
Viscosity Index	–	122	ASTM D2270
Grease Properties			
Penetration (1/10 mm)	Unworked	146	ASTM D217
NLGI Grade	–	5	ASTM D217
Oil Separation	24 h, 100 °C	0%	FTM 791, Method 321.2
Evaporation	24 h, 100 °C	0.16%	–

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