

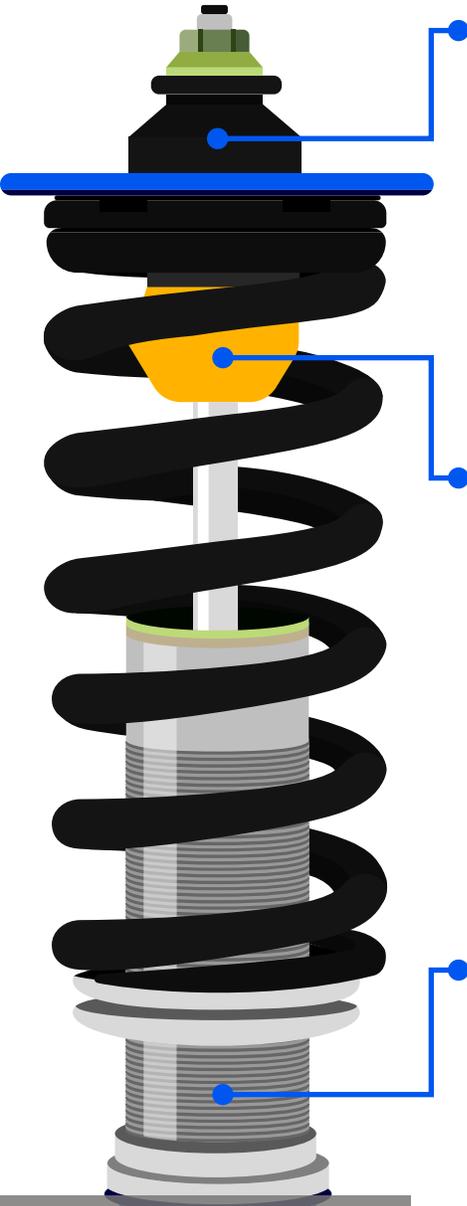


Automotive Struts/Shocks

A strut is an integral part of a vehicle's suspension supporting the vehicle while also absorbing impacts from bumps, potholes, and other road disturbances.



Lubricating the upper isolator, jounce bumper and utilizing the correct internal strut/shock oil will help reduce friction, noise, vibration, and harshness (NVH) in the suspension.



UPPER ISOLATOR



An upper isolator acts as a damping component at the top of the strut/shock mounting location to prevent irritating noise and vibration from transmitting through the chassis of the vehicle. The addition of a lubricant will allow elastomeric and metal components to slide against each other preventing "stick/slip" noise. Choosing a grease with good water washout capability, elastomer compatibility, and wide temperature performance will be critical to prevent warranty returns.

Product Name	Type	Temp. Range (°C)	Oil Separation (100°C, 24 hrs)	Color	Characteristics
Fluorocarbon Gel 880	Silicone	-40 to 200	0%	White	Great compatibility with elastomer

JOUNCE BUMPER



A jounce bumper provides the final shock absorption when the suspension experiences extreme compression from the vehicle hitting a large bump. The addition of a synthetic grease to the jounce bumper will prevent any noise to the driver when the strut contacts the jounce bumper. As stated with the upper isolator, choosing a grease with good water washout capability, elastomer compatibility, and wide temperature performance is critical.

Product Name	Type	Temp. Range (°C)	Kinematic Viscosity		Color	Characteristics
			100°C	40°C		
Fluorocarbon Gel 880	Silicone	-40 to 200	7,349 cSt	18,407 cSt	White	Superior water washout
Rheolube® 393	PAO	-40 to 125	580 cSt	6,150 cSt	Red	No Silicone or PTFE

INTERNAL STRUT/SHOCK OIL



A strut or shock uses an internal hydraulic oil to lubricate bearings and seals while providing a damping action to accommodate for road disturbances. As a strut or shock is actuated, the exchange of oil through valves slows the action, providing needed damping. The choice of a correct oil will reduce friction on internal parts and allow the strut to perform properly over wide temperature ranges needed in automotive. Nye Lubricants has developed specialized oils designed to significantly reduce internal friction and optimize the damping action of struts and shocks.

Product Name	Type	Temp. Range (°C)	4-Ball Wear (60 min, 1200RPM, 40 kg load)	Characteristics
Nye Synthetic Oil 148G	PAO/AN	-40 to 175	0.8 mm	High temperature, low friction oil
Nye Synthetic Oil 185D	PAO	-40 to 120	0.54 mm	Rust-inhibited for corrosion protection

SAMPLES

All products will be available for sampling upon request by contacting your Nye Regional Engineering Manager.

