Direct Lubricated Gland Bushing

Royal Cylinders
225 Edworthy Way
New Westminster, BC V3L 5G4
www.RoyalCylinders.com

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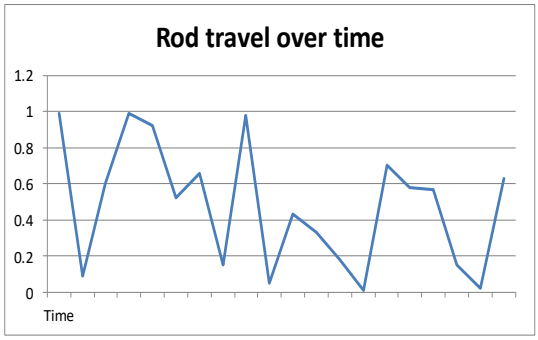
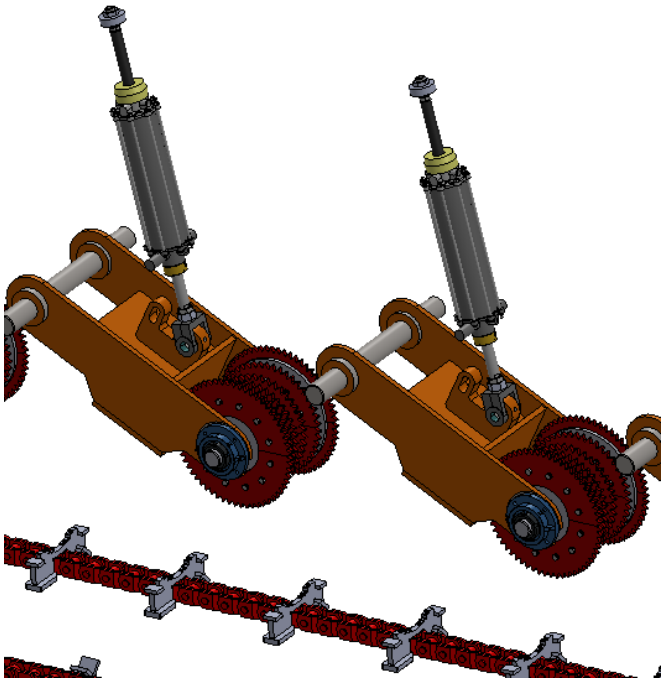
In certain heavy duty pneumatic cylinder applications the gland bushing is not getting enough fresh lubrication, this could lead to premature wear of the gland, seals, and piston rod.

For machine applications that use custom pneumatic cylinders to provide hold down force or other similar guidance to material flow, typically the cylinder rod needs to move a very short distance but is always in constant motion. The actually stroke of the cylinder could be 12 inches but it may only move in a 0.5 inches space for most of the operations, but it will travel 1000's of feet in a given day in that small space. This type of application movement prevents fresh lubricated air to enter the cylinder and get into the gland bushing, resulting in premature wear of the gland bushing, seals, and piston rod.





SAW MILL: CANTER HOLD DOWN APPLICATION

THE SOLUTION

Adding a direct lubrication point into the gland bushing enables users to get fresh lubrication between the gland wear point and rod seal. The lubrication can range from light oil to heavy grease, depending on the application and seals used. Being able to periodically control when and how much lubrication this wear area receives will extend the heavy duty pneumatic cylinders life and increase the machines performance.

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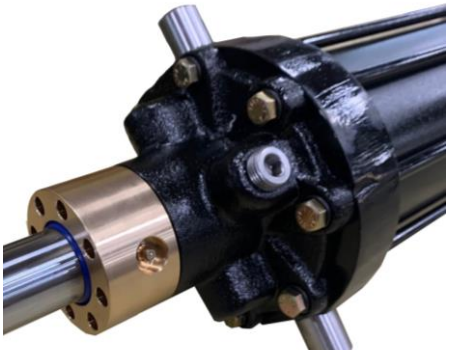
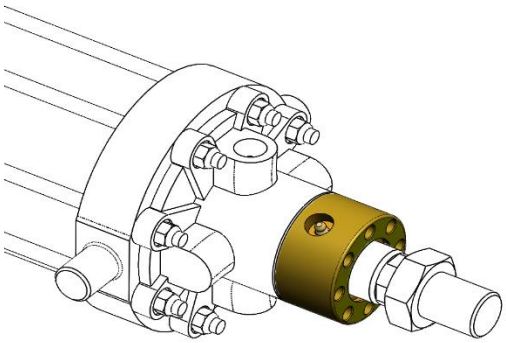


R SERIES – CUSTOM PNEUMATIC CYLINDER
DIRECT LUBRICATION ACCESS

ADVANTAGES



- Lubrication is injected directly to the internal load bearing elements of the cylinder. Prevents premature wear and damage from overheating of all internal moving surfaces.
- Maintains cylinder response time by reducing heat-induced friction forces. Significantly increases the life of the rod wiper and rod seal.
- Reduces air consumption by maintaining a leak free pressure vessel.
- Reduces total cost of ownership by increasing the time between rebuilds and reducing unscheduled system component failures.

CONCLUSION

When taking a standard heavy duty pneumatic cylinder and making it into a custom pneumatic cylinder the end goal is always to improve performance, reduce downtown, and most importantly lower the total cost of ownership.

Not all applications require custom cylinder solutions, but when they are implemented correct the results on the machines performance speak for themselves.

Need help determining the right cylinder for your application. Royal Engineers and Technicians are here to answer any and all cylinder application questions.

Get a quote quick!

DATE	Feb-2022
CATEGORY	General Solution
TAGS	
SERIES	L Series, R Series

AUTHOR

Chris McGregor

Product Specialist

Chris is currently Royal's Product Specialist and responsible for providing engineering and sales support for custom cylinders and applications. He holds a Mechanical Engineering Technologist Diploma, from British Columbia Institute of Technology along with extensive experience in hydraulic and pneumatic systems.

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