

Proof of Performance

Petron Spider Bushing Crusher Lube



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to this



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Background Information

Industry: Mining

Equipment: Gyratory Crusher

Application: Nordberg 54-80 Gyratory Crusher Spider Bushing

Previous Product: Competitor Lithium complex with 5% moly NLGI 1 grease

Application Rate: Manually filled bushing reservoir to a depth of 1.5 inches for initial coverage. Connected to automatic lubrication system and set the ALS to pump for 15 seconds every 2,700 seconds (45 minutes)



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Previous Condition:

- Customer was using a conventional high-end Multi-Purpose grease to lubricate the Spider Bushing on a large Gyratory Crusher
- After every 6 months of operation the Spider Bushing was worn with over *40 thousandths* wear at the critical fulcrum point, causing it to be replaced
- Cost of spider bushing- \$ 26,000 which does not include cost of labor for change out

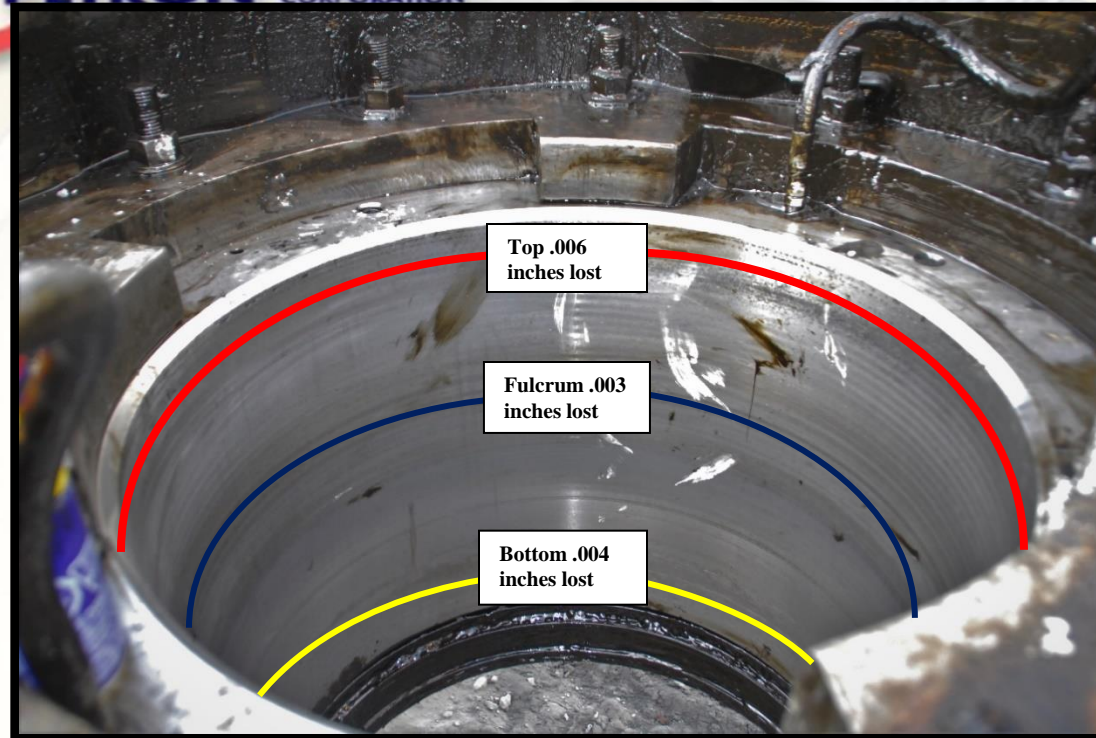


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Current Condition:

- The lubricant was changed to Petron Spider Bushing Crusher Lube in October 2018
- Application rate remained the same as previous lubricant
- After six months of operation the Crusher was disassembled, and the Spider bushing was measured

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Dimension location	Coordinates	Original bushing diameter-inches	Bushing diameter after 6 months of operation-inches	Difference-inches
Top	East -West	24.138	24.144	0.006
	North-South	24.138	24.144	0.006
Fulcrum	East -West	24.14	24.143	0.003
	North-South	24.14	24.141	0.001
Bottom	East -West	24.138	24.142	0.004
	North-South	24.138	24.141	0.003



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Benefits:

- **Less wear due to heavy viscous base oil with naturally occurring tackifiers covering entire surface of the Spider Bushing during operation. When the Spider Bushing is properly lubricated there is less corresponding stress on the mantle shaft and the eccentric bearings that stabilize the mantle during operation**
- **No metal to metal contact during shock loading**
- **Extended Spider Bushing life from 6 months to potentially 3+ years. Potential cost savings of \$150,000 on just the Spider Bushing replacement**

Results correspond with other Crushers that have reached 30,000 to 40,000 hours on a Spider Bushing using the Petron Spider Bushing Crusher Lube