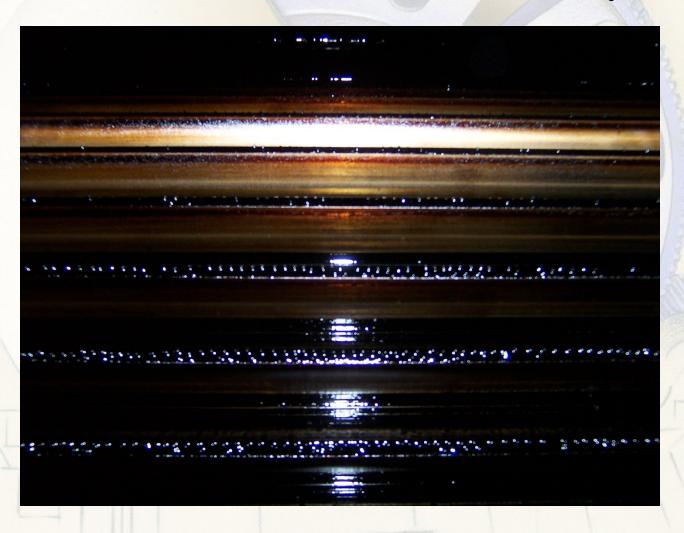


Gear Shield NC® In The Cement Industry





Background Information

Industry: Cement

Equipment: Ball Mills

Application: Open Gear Lubrication

Lubricant: Petron Gear Shield NC®

Current Mill Specifications:

Girth Gear Diameter= 22.5 feet

Pinion Face Width = 38 inches

Lubrication System = Automatic/Progressive/Farval DM 50 blocks/Seven Spray Heads.

Lubrication Cycle = Gear Shield NC® every 20 minutes.

Before Gear Shield NC®:

- 1) Lubricant did not meet OEM recommended viscosity for open gear lubricants.
- 2) Lubricant would not consistently drain from gear guard.
- 3) Automatic lubrication system applied 3.5 oz. of lubricant every 5 minutes.
- 4) Open gear lubricant consumption was approximately 63 pounds per day.

After Gear Shield NC®:

- 1) Gear Shield NC® exceeds OEM viscosity requirement for open gear lubricants.
- 2) Gear Shield NC® consistently drains from gear guard.
- 3) Automatic lubrication system applies 1.1 oz. of Gear Shield® every 20 minutes.
- 4) Consumption of Gear Shield NC® is approximately 5 pounds per day.

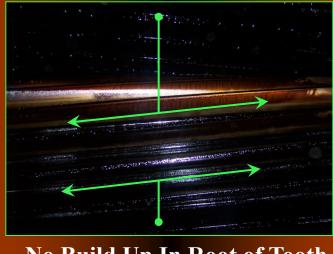
Benefits:

- 1) High viscosity film strength restored on pinion and girth gear.
- 2) Consistent drainage eliminates lubricant build up inside of gear guard.
- 3) Hard cost savings realized through reduced consumption.



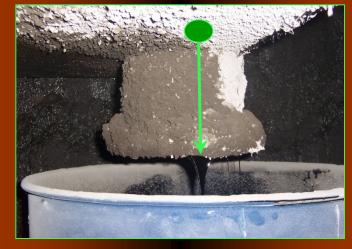
Gear Shield NC® In Service

Superior Film Strength



No Build Up In Root of Tooth

Consistent Drainage...

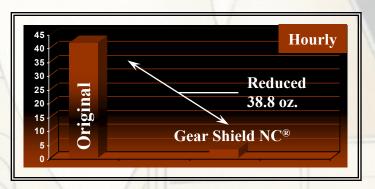


...Removes Contaminants



Comparison Of Total Lubricant Consumption (ounces)
(Original to Gear Shield NC®)

	Original	Gear Shield NC®
Hourly	42.0 Ounces	3.20 Ounces
Daily	1,008 Ounces	76.80 Ounces





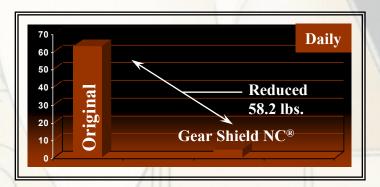
Benefits

- Reduced Cost For Lubricant
- Reduced Cost For Waste Disposal
- **Improved Housekeeping**



Weight Comparison – Lubricant Transferred (pounds) (Original to Gear Shield NC®)

	Original	Gear Shield NC®
Daily	63.0 pounds	4.80 pounds
Annual (350 days)	22,050 pounds	1,680 pounds





Benefits

- Reduced Compressed Air Demand
- **Reduced Stress On Pump**
- **Reduced Stress On Lube Lines**