



MOLYKOTE[®]
FROM DOW CORNING

Cost-effective grease from Dow Corning keeps wheels—and screams—going

Smart Lubrication™

CASE HISTORY

Customer

Six Flags Great Adventure

Location

Jackson, New Jersey

Problem

Grease for "The Great American Scream Machine" was expensive and difficult to obtain.

Product Selected

Molykote[®] BG-20 High-Performance Synthetic Grease

It may be hard to remember while riding the boomerangs and corkscrew loops of the Great American Scream Machine at Six Flags Great Adventure that all that excitement depends on grease. But John Kuschyk, supervisor of maintenance, never forgets. The road wheels on the 3,600-foot-long mega-roller coaster need to have the grease in their bearings replenished every seven to ten days from March to October, which adds up to a lot of grease.

Kuschyk and Six Flags have two priorities for the Scream Machine. First, above all, is public safety. Second is a very fast, smooth ride. Both depend on a grease that will perform across the wide range of temperatures from chilly spring to the heat of summer, that will allow lubricant to flow easily between the inside and outside bearings, and that will not put a drag on the wheels.

The original specification for the 11-year-old Scream Machine called for the road wheel bearings to be in an oil bath. The problem was that the oil caps sometimes came off unexpectedly and let the oil fly out. Eventually the caps were sealed and the oil replaced with a grease installed with a manual pump or gun under pressure through fittings in the wheels' hubs.

The system is not closed, however, and after a week or ten days, fresh grease has to be pumped in to replace what leaks out. The grease they were using was, according to Kuschyk, "very expensive." Before the 1998 season Kuschyk decided to look for a cost effective alternative lubricant that would still meet Six Flags' high performance requirements. He asked the designated supplier for the bearings used in all the roller coasters in the park to find a solution. The supplier came back with Molykote[®] BG-20 High-Performance Synthetic Grease, which they could supply locally at about one-fifth the price of the old grease.

Molykote[®] BG-20 is a polyester grease with lithium complex thickener. It combines the wide temperature range of a silicone grease, estimated at -50°F to 360°F (-45°C to 180°C), with the high load-carrying capacity typical of solid lubricant-containing organic greases. This grease is advantageous in applications that experience high temperatures, extreme pressure or high speed, which pretty well describes the Scream Machine.



The wheels on the Great American Scream Machine at Six Flags Great Adventure in Jackson, New Jersey, are greased more cost-effectively, thanks to Molykote[®] BG-20 High-Performance Synthetic Grease.

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Kuschyk phased in the new grease with care, trying it out in one-half of a 7-car train during the 1998 season. When the material performed with no failures and no additional drag on the wheels, he replaced the grease in one complete train with *Molykote*[®] BG-20 High-Performance Synthetic Grease for the 1999 season.

Guests riding the Scream Machine have no idea they are riding on a cost-saving grease. Some people even say the ride is faster than before. But who has time to think about that? They're all too busy screaming.

FOR MORE INFORMATION

For product information or for a Material Safety Data Sheet (MSDS), contact your Dow Corning representative, or call the Dow Corning Technical Service Department at 1-800-435-7561.

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