

A leading gear motor manufacturer improved the performance with use of MOSIL Specialty Fluid Grease



OVERVIEW

INDUSTRY SEGMENT

Motor manufacturing

EQUIPMENT

Gear Motor

APPLICATION

Worm Gear

CHALLENGE

Grease either leaked through seals or flashed off on the inner casing of gear motors & over a period of time gears run dry

EXPECTATION

Grease should not flash off or leak through seal.

RECOMMENDATION

ML - 6520

BENEFITS

Operating temperature is reduced

Volume for application of grease is reduced

INTRODUCTION

Over 75% of the mechanical power harnessed by industries is due to motors that bank upon- good speed regulation and operating characteristics. Due to their efficient characteristics in every sector the traditional motors are now being replaced by geared motors as they tend to operate more smoothly and quietly because of the motor and gearbox being enclosed in a single casing. The Gear motor provides a great combination for achieving optimum energy efficiency as well as extending the life of your equipment.

Compact design means that lubrication can be better controlled which reduces the risk of leakage and subsequent overheating so choosing the right lubricant is an important factor.

Looking over lubrication, An Indian motor manufacturer realized that their lubricants either leaked through seals (Gear Oils of ISO VG 320 or 460) which used to get hardened due to prolonged exposure to the incorrect selection of base oil or flashed off on the inner casing of gear motors (Fluid Greases of inferior quality) & over a period of time gears run dry.

After a detailed discussion over this issue and upon the realization of their expectations MOSIL provided them a solution that reduced the operating temperature of geared motors along with reducing volume of grease.



"There is a reduction in the operating temperature of Geared Motors"

SOLUTION

MOSIL was able to cover all the challenges and offered a solution for same. MOSIL ML 6520, A heavy duty grease which is an Aluminium Complex thickened NLGI -00 grease has very strong adhesive properties. Aluminium Complex is thixotropic in nature & act as a Pseudoplastic fluid under constant shear stress. And also has more load carrying capacity than normal Lithium base grease. The NLGI - 00 grease which is less flow-able & with strong adhesion property so that it should not flash off & stick to gear tooth, fulfilled the desired expectations for the smooth functioning of the overall motor

RESULTS

- Reduced the quantity of lubricating grease as compared to previously used lubricant such as Gear Oil or inferior fluid greases.
- Operating temperature reduced by 6 - 8 degree
- Stronger adhesion property of the grease resulted in better film formation during usage and cold start. This resulted in lower wear of the gears.
- Right consistency of grease with superior additive system ensured leakages are avoided.
- Life Long lubrication was achieved resulting in "Fill & Forget" type of lubrication system.

Get in touch with our Technical Services team to know how MOSIL can solve your lubrication challenges.