

Customer Testimonial



Synolec® Gear Lubricant (9920)

American Gypsum Co. – Bernalillo, N.M.

CMI Milling Machine, Model PR-800-7

- **Extended planetary gear life from 1,000 hours to 4,200 hours**

Customer Profile

American Gypsum is the third largest sheetrock manufacturer in the United States. They are also a subsidiary of Centex, Inc., one of the nation's largest homebuilders. The gypsum for two of the four American Gypsum sheetrock plants is mined at the White Mesa Mine outside of Bernalillo, New Mexico. Jerry Higginbotham is the mine maintenance manager and has been with American Gypsum for six years.

Application

The CMI milling machine is used to make repeated passes over the surface and cuts off five inches of gypsum over an eight-foot width with each pass. Model PR-800-7 is the next to the largest milling machine made by CMI, and is capable of cutting 12 inches of gypsum on each pass, but through repeated trials, it was determined that a five inch cut maximized the output. The mine is operating two shifts per day, five days a week with an annual production of 800,000 tons. By using the milling machine to cut the gypsum, the largest piece of gypsum is less than 2 inches, thus eliminating the need for a bulldozer and a crusher. The output of the milling machine keeps two loaders busy.

Challenge

CMI rates the life expectancy of the milling machine's planetary gears at 2,000 hours. This rating is based on highway construction use, which is a lighter duty cycle. At the White Mesa Mine, the service life of the planetary gears while using a commercial grade lubricant was only 1,000 hours. Mr. Higginbotham was looking for a superior gear lubricant that was capable of extending the life of the planetary gears.

LE Solution

The local LE lubrication consultant recommended Synolec® Gear Lubricant (9920), which is an SAE 75W-140 heavy duty, 100% synthetic enclosed gear lubricant that is engineered for severe operating conditions. Mr. Higginbotham purchased a



barrel of Synolec 9920 in anticipation of the planetary gear breaking down in the near future. When the gear broke and a new planetary gear was installed, it was filled (4 gallon sump capacity) with Synolec 9920. The planetary gear ran 4,200 hours before breaking.

Results

Each planetary gear for the CMI PR800-7 costs \$17,000 plus 16 hours labor to change the gear. By changing to Synolec 9920, Mr. Higginbotham has saved American Gypsum \$54,000 per year in parts alone.

Other Products Used

The mine's equipment is lubed with Almagard® Vari-Purpose Lubricant (3751-3752). On the milling machine, the cutting drum support bearings used to be replaced three times per year at a cost of \$2,800 each. Since switching to Almagard 3751-3752 almost three years ago, there has been not one bearing failure. This is an aggregate savings in parts alone of \$25,000 and still counting.

In addition, Monolec® Hydraulic Oil (6110) has doubled the life of the hydraulic pumps.

Thank you to Mr. Higginbotham, maintenance manager, and to the local LE lubrication consultant, for providing the information used in this report.



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