

Customer Testimonial



Monolec® R & O Compressor / Turbine Oil (6406)

Walnut Grove Products – Monticello, Wis.

California Pellet Mill, Model 202

- Lowered operating temperature
- Extended equipment life

Customer Profile

Walnut Grove Products, a Division of Cargill, Inc., is located in Monticello, Wisconsin. They manufacture animal feed. Ken Risley is the Plant Manager.

Application

Walnut Grove Products uses a California Pellet Mill, model 202, series 7000. This unit has a two speed transmission and is driven by a 200 hp motor.

Challenge

In 1976, Walnut Grove Products was using a manufacturer recommended lubricant in the gearbox on this mill. The mill was running at 180°F (82°C), which called for an oil cooler in warm weather. This oil cooler ran almost all of the time in the summer months.

LE Solution

The local LE lubrication consultant recommended they convert the gearbox on this unit to Monolec® R & O Compressor / Turbine Oil (6406). This R&O, non-detergent oil meets the requirements for the CPM unit.

Results

After converting this machine to LE's 6406, the mill has never gone above 130°F. C.P.M has maintained that the unit should be inspected every 5 years and to expect rebuild every 10 years. The mill has operated for 22 years on Monolec 6406 without the need for the expected rebuild. A conservative estimate of the hours of operation is more than 71,000 hours.

During the summer of 1996, Mr. Risley started hearing a "slapping noise" in the mill. He suspected keyway wear in

the transmission. In July of 1996, the mill was opened for inspection. They discovered the bull gear (20" diameter) that drives the transmission had two teeth broken. The bull gear drives a 6" pinion in the transmission. This pinion showed no signs of wear. All the gears in the transmission were in excellent shape, including the soft metal sleeves and shifting gears. The bearings showed no sign of wear or sloppiness. A new bull gear was ordered. The mill was reassembled and they continued to operate until the new gear arrived.

When the new gear arrived, Mr. Risley decided to replace the shifting sleeves, gears and bearings while the mill was being rebuilt. While tearing down the mill, they found a locking nut from the oil pump. Since the oil pump still had it's locking nut in place, the loose nut was apparently dropped during the original assembly and never retrieved. The nut was badly worn, showing signs of considerable rubbing and binding (badly disfigured).

Twenty years on Monolec 6406 had helped to keep this mill running even with the loose nut inside and the two missing teeth on the bull gear. Wear on the pinion was measured with a micrometer at less than 1/32. There were still flat heads on the teeth.

Other Products Used

- Almasol® High Temperature Lubricant (1250) is used in the bearings on the pellet mill.

Thank you to Ken Risely, plant manager, and to Rich Hughes, LE lubrication consultant (pictured), for providing the information used in this report.





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