



## LE Lubricants for Agri-Business

### Agri-Business Operation in Montana

### Various Equipment

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#### Customer Profile

This large regional agri-business operation supports the farming and ranching industry in Montana. Agriculture is easily the largest industry in the State, and this multi-location supplier is a big benefit to the agriculture industry, providing chemicals, fertilizer, fertilizer services, advice, and pellet feed.

#### Application

Applications include California Pellet Mills, large fertilizers trucks (typically Loral field spreaders) and general elevator bearings and gearboxes. Air compressors are also a typical application for this customer.

#### Challenge

The primary concern for this customer is their California Pellet Mills (both single and dual speeds) and their very large feed/fertilizer spreader trucks.

The CPMs require a multi-purpose EP grease or high temperature grease, depending on the material they are pelletizing. The grease needs to withstand higher than normal temperatures—160 to 210°F (71 to 99°C)—and steam, while maintaining a good seal to keep the contamination of pellet dust out. High grease consumption, seal repair and bearing replacement will occur if the grease cannot control these conditions.

The fertilizer trucks run in unfavorable weather conditions, with varying sizes of loads. Their work is performed in the field, under difficult conditions for the differentials. They can be operating in the mud or frozen, rutted conditions that often exist. Under these conditions the differentials take a real beating and failures are common.

#### LE Solution

The following LE products are recommended for the California Pellet Mills: Almaplex® Industrial Lubricant (1275) and Almasol® High Temperature Lubricant (1250). These two products would be used on grease points.

They do a superior job of handling the conditions that exist (heat, steam and contamination).

The gearboxes on the CPMs are typically filled with Duolec® Vari-Purpose Gear Lubricant (1605). Duolec 1605 is formulated for heavy-duty service in industrial gearing and contains Duolec®, LE's exclusive wear-reducing additive.

Monolec® Gear Lubricant (704) is used in the differentials on the field spreader trucks. Monolec 704 offers maximum protection for the gears. At inspection, which is done between the fall and winter seasons, the differentials have shown less wear since switching to Monolec 704. The most important thing, however, is that there have been no failures over the last two seasons.

#### Results

Actual dollar savings are hard to pinpoint, but replacing any differential on the fertilizer trucks would cost thousands of dollars. But, more important is potential downtime cost which would be exorbitant. The field trucks and CPMs are valued based on their ability to produce. The agri-business operation has to be in the field during specific times of the year. Planting and fertilizing must be done at these times, or crop potential is lost. Their equipment works long hours at this point, and obviously downtime would be magnified. The same would be true for the CPM, because when an order comes in, the machine needs to be running at peak efficiency to guarantee completion of the order.



### ***Other Products Used***

- Monolec® Gear Lubricant (703) is used for transmissions calling for a multi-weight gear oil.
- Duolec® Vari-Purpose Gear Lubricant (1605) is used for the differentials on the smaller trucks.
- Monolec® Power Fluid (7500) is used in equipment calling for an Allison C-4 fluid. These are combination systems (transmission/hydraulic systems) commonly found on ag trucks.

*Thank you to the personnel at this agri-business operation, and to Jim Pezoldt, LE lubrication consultant, (pictured) for providing the information used in this report.*



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