



Duolec® Vari-Purpose Gear Lubricant (1607)

Toro Company – Windom, Minn.

Boston 700 Series Right Angle C-Frame Gearboxes

- Reduced operating temperatures
- Extended seal and gearbox life

Customer Profile

Toro Company manufactures home and professional landscape power equipment and accessories that are sold worldwide. Brand names include Toro, Lawnboy and Wheel Horse. The Windom location manufactures top quality lawn, landscape and garden equipment for homeowners and hobbyists. They have been in operation since 1954 and have been an LE customer since 1989.

Application

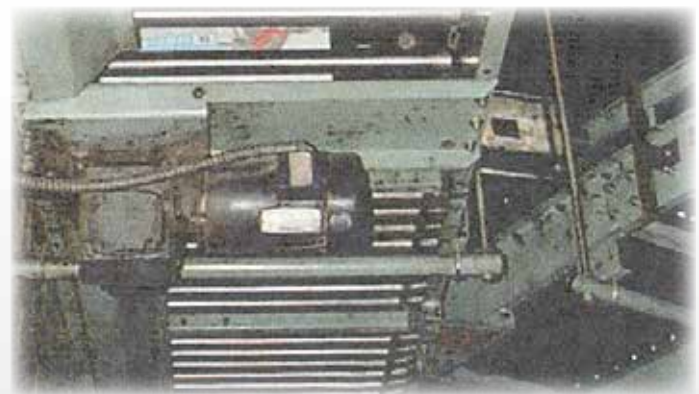
This Toro plant uses 7 Boston 700 series right angle C-frame gearboxes. These gearboxes are essential to the production line.

Challenge

While using commercial gear oils, Denis Quarberg, maintenance supervisor, Consumer Products Division, felt operating temperatures were elevated, contributing to the rubber seals drying out and leaking. As an effort to control downtime, leaky gearboxes would need to run until total failure or at least until the end of the production day before they could be replaced.

LE Solution

Duolec® Vari-Purpose Gear Lubricant (1607) has proven in both laboratory and actual plant use, to significantly lower operating temperatures. LE's base oil contributes to longer seal life in contrast to commercial oils that utilize "conventional wisdom" base oils that often shorten seal life. Superior ability to climb and not sling off the gears



and a better anti-foam additive contribute to giving the best all around gearbox protection possible.

Results

Since installing Duolec 1607, operating temperatures have dropped. Seals and gearboxes are lasting 3 years as opposed to 6 months with commercial oil. With gearboxes lasting 6 times longer, unplanned downtime and emergency maintenance have been substantially reduced.



Other Products Used

- Syntemp® Synthetic Lubricant (9102) is used on the 1,000 foot long roller conveyor line. Rollers are 30 inches long and each roller shaft's expected life was one year. Now with Syntemp 9102, there has been only one loss in the last 3 to 4 years. It is also used on motor drive chains.
- Multilec® Industrial Oil (6802) is used in the Gardner Denver 150 hp and 100 hp rotary screw air compressors. Drain intervals have remained the same as the higher priced OEM synthetic oil.
- Monolex® Penetrating Oil & Lubricant (2059) is the penetrating oil of choice in this plant.

- Almaplex® Industrial Lubricant (1275) is used wherever extended re-lubrication intervals are a value. Oven air circulation fans are used to pull 400°F (204°C) air out and return it to the ovens. Almaplex 1275 has reduced the need to re-grease from once a week to only once a month. The plants air make-up fans required re-lubrication each month with commercial grease, with Almaplex 1275 it is only needed once every 3 months.

Thank you to Denis Quarberg, maintenance supervisor, and to the local LE lubrication consultant, for providing the information used in this report.

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Based on actual user experience. Individual results may vary. Not intended to supersede manufacturer specifications.

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