

TECHNICAL BULLETIN ON MILITEC-1 IN GEARBOXES

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This report comes from a large printing plant in North Carolina that prints on fabric.

This company started applying Militec-1 in its Boston gearboxes in early April, 1992. There are 7 machines that have this gearbox. Each gearbox is driven by a 1/2 horsepower motor. The gearboxes are operating for varying periods of time depending on demand. There are periods when the gearboxes are operating over 3 eight-hour shifts, while during other periods it could be 1 or 2 10-hour shifts. On average, it is estimated that the gearboxes operate about 50% of the time.

Prior to using Militec-1, the company was replacing the internal components of about one gearbox per month. The cost of the parts was \$150 per month. The additional costs were 2 1/2 to 3 person hours of maintenance and, most costly, the downtime.

At first, Militec-1 was applied when the new parts were installed. The main wear was on a brass bushing that rubs against a steel worm shaft. When these are installed and started up, initially there is considerable temperature as the first wear occurs. With Militec-1, the temperature following start up was close to ambient temperature and the normal operating temperature also was lower. This was not measured by degrees but the change was significant enough that it could be sensed by touch.

When it was seen over the first few months that Militec-1 reduced the temperature, thereby indicating less wear, it was applied to the gearboxes that still did not require new bushings. The amount of Militec-1 applied was 1 1/2 ounces that were added to 1 1/2 pints of gear oil. Militec-1 was added only once to each gearbox over the past ten months.

Over a period of just over ten months of Militec-1 use, there has not been one gearbox failure. This means that ten gearboxes were saved from needing a rebuild. Since each gearbox used only 1 1/2 ounces, the total amount of Militec-1 used was 10 1/2 ounces for all seven gearboxes. This amount of Militec-1 saved the company \$1,500 in parts plus the cost of labor and expensive downtime.

UPDATE:

The Maintenance Supervisor at this plant reported that over the four years that Militec-1 has been used in these gearboxes there have been no failures. Without Militec-1, there would have been approximately 48 failures. The company saved \$7,200 in parts plus the cost of labor and expensive downtime.