JORDAIR
COMPRESSORS INC.

Separator failure Report Rev. #2 – 18.01.2003 ABC Fire Compressor

- Separator Failure Report -

In June 2002 at ABC Fire Extinguisher Co. in Saskatoon, Saskatchewan a "Type 1" 7075-T6-aluminium alloy final oil and water failed during the filling of a high-pressure storage cascade to 5000 PSIG. The separator barrel failed at the inner most thread and the barrel separated from the lower cap. The barrel and top cap proceeded upwards with great force through a pair of 2" x 8" ceiling joist and then impacted into a steel roof truss.

The compressor operator substained injury to one hand that was placed on top of the separator when the barrel departed from the lower cap and rocketed upwards. The accident could have been much more serious or even fatal had the operator been leaning over the separator when it failed.

The K14 compressor had been sold a number of times and was purchased as a used unit. The current owner Mr. Don Crawford of ABC Fire was not aware of a safety directive sent out over 12 years ago warning of possible failure of the "Type 1" oil and water separators. The compressor was produced in 1984 and according to the hour meter reading had reached 1475 operating hours.

The critical concern at this time is how many other compressor units are in service that could fail in a similar way. This information is being sent to bring to the attention of all operators of high-pressure compressors the immediate need to make sure that the final oil and water separator is safe to operate.

Jordair offers ASME code design engineered separators with CRN (Canadian Boiler and Pressure Vessels Registration) to replace any questionable units in service. It is illegal in Canada to operate a compressor system that has unregistered pressure components that do not have CRN numbers.

The following photos show the results of the failure.

COMPRESSOR HOUR METER

FAILED SEPARATOR BARREL