



Product Information Sheet

T-5002

HOW TO INTERPRET A LABORATORY TEST REPORT

There are some guidelines provided by compressor manufacturers as what level of viscosity, wear metal, water, and acidity are acceptable. This information is condensed in the Table 4. The wear limits for metal in oils applies to both screw and reciprocating compressors.

Lube:

Indicates the hour's lubricant has been in the machine since the last change of oil. Considering the other physical property data, you can estimate how long the oil will last. We expect to improve oil change on an average of 6,000 hours.

Viscosity: For optimum result, oil should maintain its viscosity. An increase can mean contamination of ammonia, with other substance operating at abnormally high discharge head pressure, or too much super-heat of suction. When viscosity decreases from its designed optimum, it means oil has been diluted by contamination of other mineral oils, solvents, or other chemicals soluble in mineral oils.
(Operating range 58-78 ISO).

T.A.N.: Total Acid Number. Every oil is manufactured from base oil with a specific acid number. An increase of 1.0 from the designed number indicates oxidation is taking place which destroys the lubricity and additives of the oil which assist the lubricant in performing its function.
(Operating range .001 to .99)

Filtration

Time: As contamination, excess temperature, or oxidation occurs, foreign particles become suspended in the lubricant which increases filtration time. When oil is not transferred through the filter at certain time intervals, it may flow through an internal bypass in the filter. Thus allowing contaminated oil to circulate in the machine. This causes excessive wear in the compressor. (Should range from 1.5 to 10 minutes. Over 10 minutes, change oil filter).

Appearance:

Any deviation from the original color may indicate contaminants in the lube oil. If color deviates dramatically from the original color, some other properties will give indication of the cause.

Anti-Oxidants:

Lubricants are designed with a certain additive package to avoid oxidation. Once an additive is depleted, as a result of contact with oxygen, the base oil begins thickening, reducing lubrication and removes anti-corrosion protection from the compressor. Anti-oxidants on new oil are 100%, when percentage is reduced to 5% oil should be changed.

NOTE: Lube Hours. CAMCO 717-HT has been documented to last up to 20,000 hours. Old systems generally have sludge, tar and varnish build-up on solenoid valves, piping, oil separators, etc. When this sludge is cleaned out of the system, as it is gradually, it may contaminate the new oil at a faster than normal rate. Depending on the degree of sludge build-up, systems should be cleaned-up in about two years. A cleaner system means fewer maintenance problems.

Periodically a sample sent in from your compressor's will be analyzed and if any excess are noticed, plant will be advised of any action necessary on their part.

CAMCO will also review reports and may be contacted for analytical interpretation. For assistance or sample bottles and labels call CAMCO, 763-205-0828.