

*'Providing Tribological Solutions'*

## **EPRI (Electric Power Research Institute) EHC Lube Notes – K. Brown**

From their website: The Electric Power Research Institute (EPRI) conducts research, development, and demonstration projects for the benefit of the public in the United States and internationally. As an independent, non-profit organization for public interest energy and environmental research, they focus on electricity generation, delivery, and use in collaboration with the electricity sector, its stakeholders and others to enhance the quality of life by making electric power safe, reliable, affordable, and environmentally responsible.

While many of their reports are only available to members and/or contributing utilities many older reports and their Lube Notes are publicly available for downloading. See [www.epri.com](http://www.epri.com).

The following are Lube Notes items that could be of interest to users of phosphate ester fluids. They have the most recent first and are authored by K.J. Brown.

### **EHC Fluids**

**Phosphate Ester EHC Elastomer Compatibility**, Lube Notes #2, December 2018.

*Summary: It should be well known what elastomers are okay but the use of unsuitable materials for seals, bladders and hoses continue. This has a table and examples. In general, do not use Buna N. Do use Viton or similar materials.*

**Avoiding EHC Fluid Problems**, Lube Notes #5, December 2018.

*Summary: Many fluid related issues are because something that should have been done, was not or was not done correctly. This discusses too common issues and the lessons learnt.*

**Electrohydraulic Control Fluid is Out of Specification**, Lube Notes #3, December 2017.

*Summary: Discusses some of the common tests, the meaning and what actions to consider. Take action before limits are reached.*

**Filter Cart Uses and Selection**, Lube Notes #5, December 2017.

*Summary: New lube oil and EHC fluids are generally too dirty to add directly to equipment. This can be because of manufacture, shipping and/or storage. This discusses what features can be specified and some of the different choices.*

**Filter Element Selection**, Lube Notes #6, December 2017.

*Summary: There is more to a filter element than the micron rating. This discusses significant features and the tests as well as useful condition monitoring and actions to optimise their application.*

**Reducing Water Content with Dry Air Purge Systems**, Lube Notes #2, December 2016.

*Summary: This shows some of the benefits of lower water contents and the ability to get down to a few hundred ppm easily.*

**Electrohydraulic Control Fluid Testing and Interpretation**, Lube Notes #4, December 2016.

*Summary: Discusses the different tests, what they mean and some actions.*

**Electrohydraulic Control Servo Valve Maintenance**, Lube Notes #5, December 2016.

*Summary: Discusses new vs. rebuilt and the importance of getting feedback in any case about the condition of the screen and of the internals.*

**New GE Specification for EHC Fluid**, Lube Notes #2, December 2014.

*Summary: This lists the changes in the specification for new and in-service fluid and the changes to recommended condition monitoring. There are many more tests.*

**High Particle Counts in EHC Fluid**, Lube Notes #4, December 2014

*Summary: Some of the causes and actions in case of high particles counts. Do not ignore.*

## Related

**To Change or Not to Change (An Oil)?**, NMAC Lube Notes #6, November 2000.

*Summary has an attempt to include all the various costs associated with an oil change. These can be 40X the cost of just the oil.*