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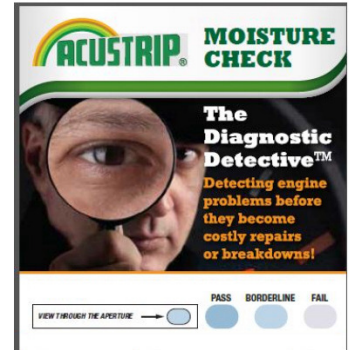
1-973-299-8237

ACUSTRIP Moisture Test Specifications & Instructions

Acustrip 40002

Please read all instructions and safety information prior to using product.

Water contamination is very common. Used oil analysis often will show levels of 500-1000 ppm water in hydraulic fluid taken from an industrial application. Water is detrimental because it does not lubricate as well as oil and can cause wear. In some cases, it also can react with the additive system to form acids that can cause yellow metal corrosion. Water in the presence of air leads to rust of component surfaces and can increase the rate corrosion, decreasing the fluid life. Fortunately, ACUSTRIP offers a quick, convenient and affordable way to check for the presence of moisture in a variety of oils with the ACUSTRIP 40002 moisture test.



Usage

Water is probably the most common chemical contaminant in Hydraulic fluid systems and condensation the most likely source. A system run in hot, humid environments ingests air containing water vapor, which then condenses upon cooling. Leaky reservoirs and seals, careless use of steam cleaners or high-pressure washers, can also introduce water. Demulsifiers in most oils help separate the heavier water portion for draining. Special coalescent materials, desiccants, centrifuges, and vacuum hydration are other ways to eliminate it.

Identification of the presence of water and or the presence of corrosion products is important to maintain the integrity of the vehicle components. Water breaks down oil-additive packages, forms acids that corrode metal surfaces and, in mineral-based oils, supports oxidation. For example hydraulic oil containing just 0.1% water by volume can cut bearing life in half, while 1% reduces projections to one-fourth of B-10 life. Further, most hydraulic pump manufacturers recommend oil contain no more than 0.1% (1,000-ppm) water. The affect of corrosion as measured in the level of metal, can identify the impact that corrosion has on a system. Water also supports biological or microbial growth, especially when systems stand idle for long periods of time. The resulting biomass tends to be corrosive, slimy, and has an unpleasant odor. Typically eradicating the bugs requires the system be professionally drained and flushed. Identifying the presence of moisture early will minimize the impact of corrosion.

Test Procedures

Test fluids before maintenance is performed. Two potential corrosion problems must be considered: system rusting and acidic chemical corrosion. System rusting occurs when water carried by the fluid attacks ferrous metal parts. Most hydraulic fluids contain rust inhibitors to protect against system rusting. The test strip should be used by the date on the packaging. For best results:

- Start with clean, dry hands and utensils.
- Run test in a well-lit area, natural light if possible.
- Take a sample of the oil from the bottom of the oil pan. Place it into the droplet bottle.
- Allow the oil sample to sit for 1 minute until it settles.
- Remove the test strip from the foil.
- The test strip must be used within 15 seconds after removing it from the foil.
- Place a droplet of the oil sample from the bottom onto the test pad.
- Allow the test strip to set for 2 minutes and 30 seconds.
- If water is present the test strip will turn white/clear (see test key).



Please Note: Your computer monitor or printer may not correctly render the colors in the above color chart. For the most accurate results, please consult the color chart that accompanies the test strips.