

How to Measure Demulsibility

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Tags: [water in oil](#), [hydraulics](#)

"How do I check to see if my aged hydraulic and/or lubricating oils can still shed water effectively?"



This is an issue of demulsibility, which is the measure of an oil's ability to release water. Of course, if you have time, your lab can run a specific test that can be performed to measure the remaining demulsibility potential.

For a quick pass/fail test, measure an equal amount (1 pint) of new lubricant and water, and fill a blender. Heat to 100 degrees F (38 degrees Celsius) or whatever temperature closely resembles the operating temperature of the sump. Thoroughly mix the oil with the water. Measure the amount of time it takes to separate. Also measure how much of the mixture does not separate (the emulsion is called the 'cuff'). Now repeat the test with the aged lubricant.

If it takes more than 20 percent longer to separate, then consider having a lab run the test according to the lab procedure. If the results indicate that the demulsibility capacity is diminished, then consider how to best address the problem, particularly if the sump is prone to moisture contamination.