CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021

DateRun: 02/22/2021

Experimenters: Nicole Kebler

ClientType: Cleaning Equipment Mfr

ProjectNumber: Project #1

Substrates:

PartType: Part

Contaminants: Oil

Cleaning Methods:

Analytical Methods: Visual

Purpose: To test oil separation using Ruff-Stuff.

Experimental Procedure: A 10% solution of TorqLube Ruff-Stuff was made, and 360 mL of the diluted degreaser was placed in a glass graduated cylinder. 40 mL of East Falls Corp Hydraulic Oil cas# 64741-88-4 was added to the graduated cylinder. The first test was unheated, and the second test was heated to the company-recommended 105 degrees Fahrenheit. The oil and degreaser solution initial total mL were recorded (A) and was mixed at 800 rpm using a stir bar for 30 minutes. After 30 minutes, the stirrer was turned off and the solution sat for 20 minutes. The solution created 3 phases, the first being just oil, the second being a mixture of oil and degreaser (looks light orange) and the third being just degreaser. The second phase mL and was recorded (B). It was then stirred for another 30 minutes, then sat for 20 and the mL was recorded again. Then the third round of 30 minutes stirring was done followed by 20 minutes of sitting and then the mL of the 3rd phases was recorded. The heated test followed the same steps and was also done for 3 trials. The separation ability was calculated using the following formula: [(A-B)/A]100 = percent separation.

Results: Both the unheated and heated tests did not exceed the 95% separation. The unheated separation had an average of 92.8% and the unheated had an average of 90.2%.

Unheated:

A (mL)	B (mL)	%	Average
395	35	91.14	92.83
395	25	93.67	
395	25	93.67	

Heated:

A (mL)	B (mL)	%	Average
390	35	91.03	90.17
390	40	89.74	
390	40	89.74	

Summary:

Substrates:					
Contaminants:	Oil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Torq Lubricants	Ruff-Stuff Waterbased Degreaser	10	92.00	☐	Oil-water separation

Conclusion: 93% and 90% averages do not exceed the 95% performance standard for separation.