

Machine Id 035-0028 Component Starboard Transmission Fluid SCHAEFFER ISO 46 (--- QTS)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

Clutch wear is indicated.

CONTAMINATION

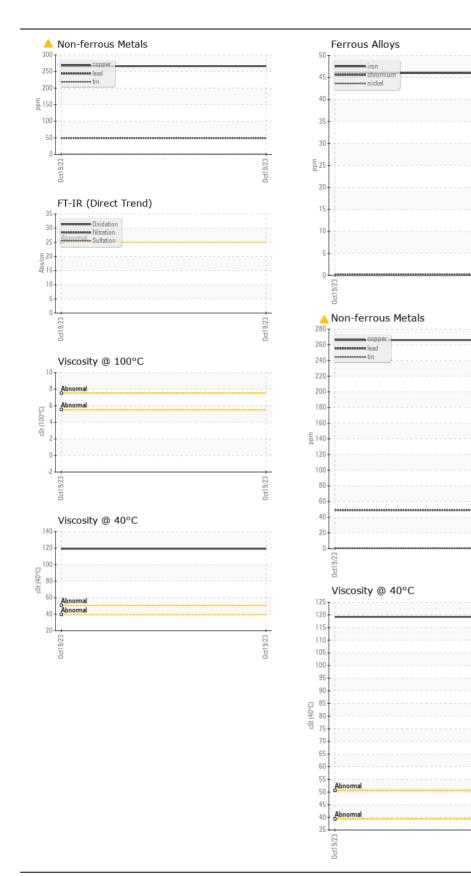
There is no indication of any contamination in the fluid.

FLUID CONDITION

The condition of the fluid is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0868401		
Sample Date		Client Info		19 Oct 2023		
Machine Age	hrs	Client Info		1761		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		Not Changd		
Filter Changed		Client Info		Not Changd		
Sample Status				ABNORMAL		
Iron	ppm	ASTM D5185m	>200	46		
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m		0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	50	0		
Aluminum	ppm	ASTM D5185m	>50	2		
Lead	ppm	ASTM D5185m	>50	▲ 49		
Copper	ppm	ASTM D5185m	>200	<u> </u>		
Tin	ppm	ASTM D5185m	>10	<1		
Vanadium	ppm	ASTM D5185m		0		
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
0'''						
Silicon	ppm	ASTM D5185m	>50	14		
Potassium	ppm ppm	ASTM D5185m ASTM D5185m	>50 >20	14 <1		
	ppm ppm					
Potassium		ASTM D5185m	>20	<1		
Potassium Water	ppm	ASTM D5185m WC Method	>20 >0.1	<1 NEG		
Potassium Water Silt	ppm scalar	ASTM D5185m WC Method *Visual	>20 >0.1 NONE	<1 NEG NONE		
Potassium Water Silt Debris	ppm scalar scalar	ASTM D5185m WC Method *Visual *Visual	>20 >0.1 NONE NONE	<1 NEG NONE NONE		
Potassium Water Silt Debris Sand/Dirt	ppm scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual	>20 >0.1 NONE NONE NONE	<1 NEG NONE NONE NONE	 	
Potassium Water Silt Debris Sand/Dirt Appearance	ppm scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>20 >0.1 NONE NONE NONE NORML	<1 NEG NONE NONE NONE NORML	 	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm scalar scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>20 >0.1 NONE NONE NORML NORML	<1 NEG NONE NONE NONE NORML NORML	 	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm scalar scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 >0.1 NONE NONE NORML NORML	<1 NEG NONE NONE NORML NORML NEG	 	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 >0.1 NONE NONE NORML NORML	<1 NEG NONE NONE NORML NORML NEG 2 333	 	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>20 >0.1 NONE NONE NORML NORML	<pre><1 NEG NONE NONE NONE NORML NORML NEG 2 333 0</pre>	 	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 NONE NONE NORML NORML	<1 NEG NONE NONE NORML NORML NEG 2 333 0 36		
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 NONE NONE NORML NORML	<1 NEG NONE NONE NORML NORML NEG 2 333 0 36 <1		
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 NONE NONE NORML NORML	<1 NEG NONE NONE NORML NORML NEG 2 333 0 36		
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 NONE NONE NORML NORML	<1 NEG NONE NONE NORML NORML NORML 2 333 0 36 <1 31 3298		
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 NONE NONE NORML NORML	<1 NONE NONE NONE NORML NORML NORML NORML 0 36 <1 31 3298 918		
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Boron Barium Malybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 NONE NONE NORML NORML	<1 NONE NONE NONE NONE NORML NORML NORML NORML 0 36 <1 31 3298 918 1078		
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Malybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 NONE NONE NORML NORML	<1 NONE NONE NONE NORML NORML NORML NORML 0 36 <1 31 3298 918		

Contact/Location: DANIEL LISELLA - AECCHATN



SHIMMICK CONSTRUCTION Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. Received 5535 TRAILHEAD DRIVE : WC0868401 : 27 Oct 2023 Lab Number : 05991980 CHATTANOOGA, TN Tested :01 Nov 2023 Unique Number : 10714642 Diagnosed : 01 Nov 2023 - Jonathan Hester US 37415 Test Package : CONST (Additional Tests: FT-IR, KV100) Contact: DANIEL LISELLA Certificate L2367 daniel.lisella@shimmick.com To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

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Contact/Location: DANIEL LISELLA - AECCHATN Page 2 of 2