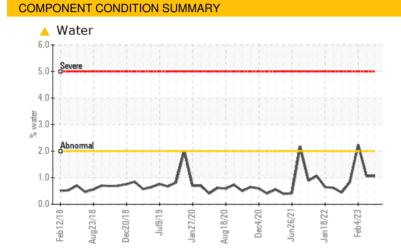


PROBLEM SUMMARY

NORTH END HAARSLEV

Bearing Fluid USPI 1580-680 (--- QTS)



RECOMMENDATION

We advise that you check for the source of water entry. Resample at the next service interval to monitor.

PROBLEMATIC	TEST R	ESULTS				
Sample Status				MARGINAL	ATTENTION	ABNORMAL
Water	%	ASTM D6304	>2	<u> </u>	1 .061	2 .24
ppm Water	ppm	ASTM D6304		🔺 10593.1	🔺 10615.4	<u> </u>

Customer Id: TYSDAKREN Sample No.: USPM29344 Lab Number: 05932823 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Doug Bogart +1 (800)237-1369 x4016 <u>dougb@wearcheckusa.com</u>

To change component or sample information: Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u>



RECOMMENDED A	CTIONS			
Action	Status	Date	Done By	Description
Check Water Access			?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS



16 May 2023 Diag: Doug Bogart

Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of particulates present in the oil. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



view report

04 Feb 2023 Diag: Doug Bogart



We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



23 Oct 2022 Diag: Jonathan Hester

We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Sample Rating Trend

WATER

Machine Id NORTH END HAARSLEV Component

Bearing Fluid USPI 1580-680 (--- QTS)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

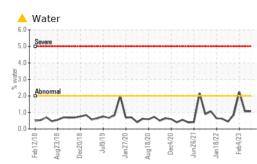
			18 Mar2019 Der2019			
SAMPLE INFORM		method	limit/base	current	history1	history2
Sample Number		Client Info		USPM29344	USPM28225	USPM26383
Sample Date		Client Info		19 Aug 2023	16 May 2023	04 Feb 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				MARGINAL	ATTENTION	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	2	<1	<1
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>20	0	1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m		<1	<1	<1
Lead	ppm	ASTM D5185m	>20	<1	<1	<1
Copper	ppm	ASTM D5185m		2	0	<1
Tin Vanadium	ppm	ASTM D5185m ASTM D5185m	>20	<1 <1	1	<1 0
Cadmium	ppm	ASTM D5185m		< 1 0	<1 <1	0
	ppm					
ADDITIVES		method	limit/base		history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m		0 <1	0 <1	0
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 2	0 <1 1	0 0 2
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 2 1	0 <1 1 1	0 0 2 <1
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 2 1 1551	0 <1 1 1 1612	0 0 2 <1 1171
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 2 1	0 <1 1 1	0 0 2 <1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 <1 2 1 1551 0 1427	0 <1 1 1612 0 843	0 0 2 <1 1171 0 1068
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	limit/base	0 <1 2 1 1551 0 1427 current	0 <1 1 1612 0 843 history1	0 0 2 <1 1171 0 1068 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m		0 <1 2 1 1551 0 1427 current <1	0 <1 1 1612 0 843 history1 <1	0 0 2 <1 1171 0 1068 history2 <1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>15	0 <1 2 1 1551 0 1427 current <1 2	0 <1 1 1612 0 843 history1	0 0 2 <1 1171 0 1068 history2 <1 <1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>15 >20	0 <1 2 1 1551 0 1427 current <1 2 6	0 <1 1 1612 0 843 history1 <1 <1	0 0 2 <1 1171 0 1068 history2 <1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>15 >20	0 <1 2 1 1551 0 1427 current <1 2	0 <1 1 1612 0 843 history1 <1 <1 4	0 0 2 <1 1171 0 1068 history2 <1 <1 <1 2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>15 >20	0 <1 2 1 1551 0 1427 01427current<126▲ 1.059	0 <1 1 1612 0 843 history1 <1 <1 4 ▲ 1.061	0 0 2 <1 1171 0 1068 history2 <1 <1 <1 2 2 2.24
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304	>15 >20 >2	0 <1 2 1 1551 0 1427 current <1 2 6 4 1.059 ▲ 1.0593.1	0 <1 1 1612 0 843 history1 <1 <1 <1 4 ▲ 1.061 ▲ 10615.4	0 0 2 <1 1171 0 1068 history2 <1 <1 <1 2 <1 2 2 2.24 2.2400
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304	>15 >20 >2 limit/base	0 <1 2 1 1551 0 1427 current <1 2 6 4 1.059 ▲ 1.059 ▲ 10593.1	0 <1 1 1612 0 843 history1 <1 <1 <1 4 1.061 ▲ 1.061 4 history1	0 0 2 <1 1171 0 1068 history2 <1 <1 <1 2 <1 2 <1 2 2 <1 2 2 4 2.24 0 22400 bistory2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water pm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304	>15 >20 >2 limit/base >10000	0 <1 2 1 1551 0 1427 current <1 2 6 4 1.059 ▲ 1.059 10593.1 current 1406	0 <1 1 1612 0 843 history1 <1 <1 <1 4 ▲ 1.061 4 ▲ 1.061 4 2021 895 ▲ 173	0 0 2 <1 1171 0 1068 history2 <1 <1 <1 2 2 ▲ 2.24 2.24 0 history2 7839
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Vater ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647	>15 >20 >2 limit/base >10000 >2500	0 <1 2 1 1551 0 1427 current <1 2 6 ▲ 1.059 ▲ 1.059 ▲ 10593.1 current 1406 432	0 <1 1 1612 0 843 history1 <1 <1 <1 4 ▲ 1.061 4 ▲ 1.061 4 2021 895	0 0 2 <1 1171 0 1068 history2 <1 <1 <1 2 < 2.24 22400 history2 7839 ▲ 2945
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Vater ppm Water FLUID CLEANLIN Particles >4μm Particles >14μm Particles >21μm Particles >38μm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 >2 limit/base >10000 >2500 >160 >40 >10	0 <1 2 1 1551 0 1427 01427current<126▲ 1.059▲ 10593.1current140643281306	0 <1 1 1612 0 843 history1 <1 <1 <1 4 1.061 4 10615.4 10615.4 10615.4 10615.4 10615.4 10615.4	0 0 2 <1 1171 0 1068 • history2 <1 <1 <1 2 ×1 2 ×1 2 ×1 2 ×1 ×1 2 ×1 ×1 2 ×1 ×1 ×1 ×1 ×1 ×1 ×1 ×1 ×1 ×1 ×1 ×1 ×1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Vater ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 >2 limit/base >10000 >2500 >160 >40 >10 >10 >3	0 <1 2 1 1551 0 1427 01427current<1261.05910593.1current1406432813062	0 <1 1 1612 0 843 history1 <1 <1 <1 4 ▲ 1.061 ▲ 10615.4 bistory1 2021 895 ▲ 173 ▲ 65 5 0	0 0 2 <1 1171 0 1068 history2 <1 <1 <1 2 2 ▲ 2.24 22400 history2 7839 ▲ 2945 ▲ 353 ▲ 353 ▲ 91 ▲ 12 1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Vater ppm Water FLUID CLEANLIN Particles >4μm Particles >14μm Particles >21μm Particles >38μm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 >2 limit/base >10000 >2500 >160 >40 >10	0 <1 2 1 1551 0 1427 01427current<126▲ 1.059▲ 10593.1current140643281306	0 <1 1 1612 0 843 history1 <1 <1 <1 4 1.061 4 10615.4 10615.4 10615.4 10615.4 10615.4 10615.4	0 0 2 <1 1171 0 1068 history2 <1 <1 <1 2 2 2 2400 bistory2 7839 ▲ 2245 4 353 ▲ 353 ▲ 91 ▲ 12
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Vater ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 >2 limit/base >10000 >2500 >160 >40 >10 >10 >3	0 <1 2 1 1551 0 1427 01427current<1261.05910593.1current1406432813062	0 <1 1 1612 0 843 history1 <1 <1 <1 4 ▲ 1.061 ▲ 10615.4 bistory1 2021 895 ▲ 173 ▲ 65 5 0	0 0 2 <1 1171 0 1068 history2 <1 <1 <1 2 ▲ 2.24 ▲ 2.2400 history2 7839 ▲ 2945 ▲ 353 ▲ 353 ▲ 91 ▲ 12 1

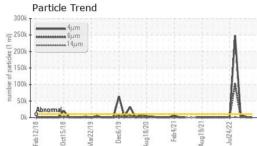


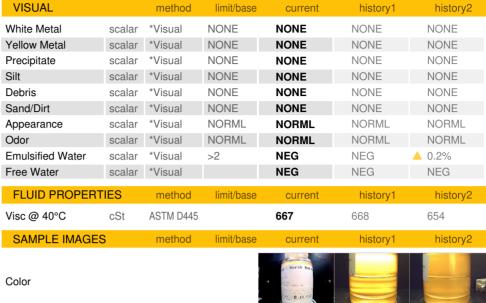
Acid Number

1.00

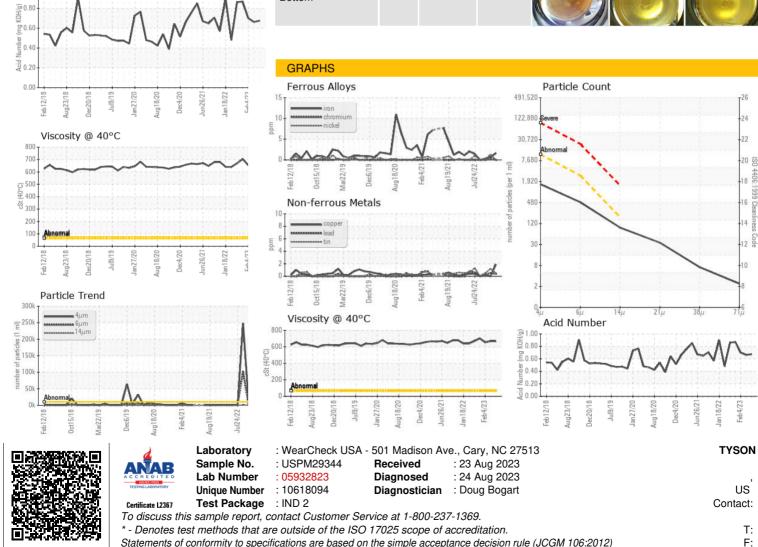
OIL ANALYSIS REPORT







Bottom



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: TYSDAKREN [WUSCAR] 05932823 (Generated: 08/24/2023 17:05:28) Rev: 1

Contact/Location: ? ? - TYSDAKREN

Page 4 of 4