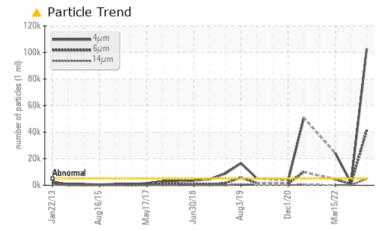


PROBLEM SUMMARY

TYSSPRBS PAW HYDRAULIC

Hydraulic System Fluid AW HYDRAULIC OIL ISO 46 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS Sample Status NORMAL ABNORMAL ABNORMAL Particles >4µm ASTM D7647 >5000 102682 1723 ▲ 24293 Particles >6µm ASTM D7647 >1300 41426 938 **4390** 4742 Particles >14µm ASTM D7647 >160 160 **1**95 Particles >21um ASTM D7647 >40 **1557** 54 39 8 Particles >38µm ASTM D7647 >10 86 2 **Oil Cleanliness** ISO 4406 (c) >19/17/14 A 24/23/19 18/17/14 ▲ 22/19/15

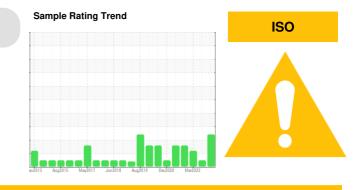
Customer Id: TYSSPRAR Sample No.: USP239281 Lab Number: 05899944 Test Package: IND 2



To manage this report scan the QR code

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

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



RECOMMENDED AC	ACTIONS					
Action	Status	Date	Done By	Description		
Change Filter			?	We recommend you service the filters on this component.		

HISTORICAL DIAGNOSIS

27 Jul 2022 Diag: Jonathan Hester



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



view report

15 Mar 2022 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. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

06 Dec 2021 Diag: Doug Bogart

We recommend you service the filters on this component. We advise that you inspect for the source(s) of metal. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. Moderate concentration of visible metal present. All component wear rates are normal. Moderate concentration of visible dirt/debris 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

Machine Id TYSSPRBS PAW HYDRAULIC Component

Hydraulic System

AW HYDRAULIC OIL ISO 46 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

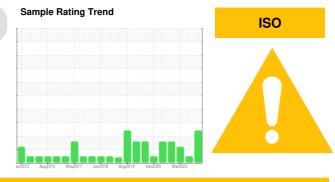
All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

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



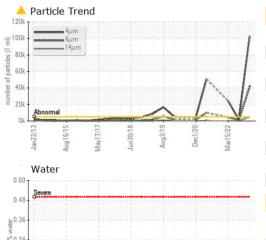
SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		USP239281	USP240801	USP235073
Sample Date		Client Info		16 Jul 2023	27 Jul 2022	15 Mar 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	2	2	<1
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	<1	1
Aluminum	ppm	ASTM D5185m	>20	0	0	0
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm		>20	2	1	<1
Tin	ppm		>20	0	<1	0
Antimony	ppm	ASTM D5185m	-			
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES	le le	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	0	1
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	0	0 <1	0
Manganese Magnesium	ppm	ASTM D5185m ASTM D5185m	25	0 0	0	0
Calcium	ppm	ASTM D5185m	200	0	0	<1
	ppm	ASTM D5185m	300	102	118	103
Phosphorus Zinc	ppm	ASTM D5185m	370	0	2	0
Sulfur	ppm	ASTM D5185m	2500	2097	1936	1546
	ppm					
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	0	<1	<1
Sodium	ppm	ASTM D5185m		0	0	<1
Potassium	ppm	ASTM D5185m	>20	0	0	0
Water	%	ASTM D6304		0.005	0.003	0.002
ppm Water	ppm	ASTM D6304	>500	56.8	25.3	17.1
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	102682	1723	A 24293
Particles >6µm		ASTM D7647	>1300	<u> </u>	938	4 390
Particles >14µm		ASTM D7647	>160	4742	160	1 95
Particles >21µm		ASTM D7647	>40	🔺 1557	54	39
Particles >38µm		ASTM D7647	>10	<mark>/</mark> 86	8	2
Particles >71µm		ASTM D7647		3	1	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	4/23/19	18/17/14	A 22/19/15
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.47	0.36	0.32

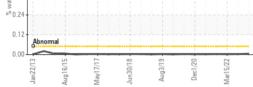
Acid Number (AN) Report Id: TYSSPRAR [WUSCAR] 05899944 (Generated: 07/18/2023 18:29:49) Rev: 1

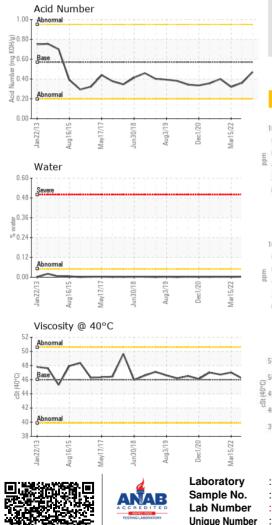
Contact/Location: VERNON MARS - TYSSPRAR



OIL ANALYSIS REPORT

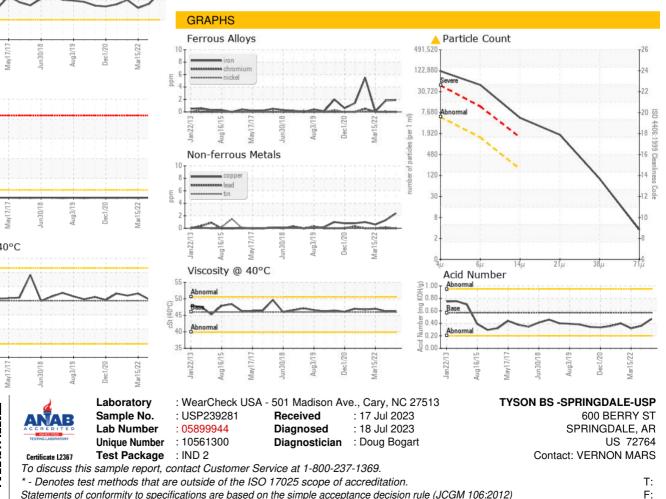






VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	LIGHT	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	VLITE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	46.3	46.2	47.0
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						

Bottom



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

Contact/Location: VERNON MARS - TYSSPRAR