

## **PROBLEM SUMMARY**

## Area SUE KOSSOW [SUE KOSSOW] 010 641018-10 Component

Steering Fluid RANDO (--- GAL)

## COMPONENT CONDITION SUMMARY



#### RECOMMENDATION

We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS							
Sample Status				SEVERE			
Water	%	ASTM D6304	>0.2	<b>•</b> 1.41			
ppm Water	ppm	ASTM D6304	>2000	🛑 14100			
Emulsified Water	scalar	*Visual	>0.2	• 0.2%			

Customer Id: INGPAD Sample No.: MW0042969 Lab Number: 06060185 Test Package: MAR 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Don Baldridge +1 don.b505@comcast.net

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



RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description		
Water Drain-off			?	We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid.		
Resample			?	We recommend an early resample to monitor this condition.		
Check Water Access			?	We advise that you check for the source of water entry.		

HISTORICAL DIAGNOSIS



## **OIL ANALYSIS REPORT**

[SUE KOSSOW] 010 641018-10 Component

Steering Fluid RANDO (--- GAL)

### DIAGNOSIS

#### Recommendation

We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

#### Contamination

There is a high concentration of water present in the fluid.

#### Fluid Condition

The AN level is acceptable for this fluid.

WATER

Sample Rating Trend

X

SAMPLE INFORM		methou	iiiiii/base	Guironi	Thatory i	Thatory2
Sample Number		Client Info		MW0042969		
Sample Date		Client Info		11 Jan 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				SEVERE		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	1		
Chromium	ppm	ASTM D5185m	>15	<1		
Nickel	ppm	ASTM D5185m	>5	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>5	2		
Lead	ppm	ASTM D5185m	>10	0		
Copper	ppm	ASTM D5185m	>50	20		
Tin	ppm	ASTM D5185m	>5	<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		6		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		0		
Magnesium	ppm					
Calaium		ASTM DS185m		4		
Calcium	ppm	ASTM D5185m ASTM D5185m		4 20		
Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		4 20 654		 
Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		4 20 654 91	  	  
Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		4 20 654 91 389		
Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	limit/base	4 20 654 91 389 current	   history1	    history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base	4 20 654 91 389 current 2	   history1	    history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	4 20 654 91 389 <u>current</u> 2 1	   history1 	    history2 
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >15 >20	4 20 654 91 389 <u>current</u> 2 1 1	   history1  	    history2  
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	limit/base >15 >20 >0.2	4 20 654 91 389 <u>current</u> 2 1 1 1 1 1.41	   history1  	   history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm 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 D6304 ASTM D6304	limit/base >15 >20 >0.2 >2000	4 20 654 91 389 current 2 1 1 1 1.41 • 1.41 • 14100	   history1  	   history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method	limit/base >15 >20 >0.2 >2000 limit/base	4 20 654 91 389 <u>current</u> 2 1 1 1 1.41 ↓ 14100 <u>current</u>	   history1    history1	   history2



# **OIL ANALYSIS REPORT**







	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
1/24 -	Appearance	scalar	*Visual	NORML	NORML		
Jan 1.	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	0.2%		
	Free Water	scalar	*Visual		NEG		
	FLUID PROPER	TIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445		48.8		
	SAMPLE IMAGE	S	method	limit/base	current	history1	history2
	Color					no image	no image
	Bottom					no image	no image
	GRAPHS						
	Non-ferrous Meta	als		Jan11/24			
	Viscosity @ 40°C			(0,740) (0,740	Acid Number		
Laboratory	: WearCheck USA -	501 Madi	son Ave., Ca	47/11/100 0.	3	IN	GRAM BAR(
Sample No. Lab Number Unique Number Test Package tiscuss this sample report,	: MW0042969 : 06060185 : 10831567 : MAR 2 ( Additional contact Customer Serv	Recieved Diagnos Diagnos Tests: KF vice at 1-8	d : 12 ed : 16 tician : Dou <sup>=</sup> , PrtCount ) 800-237-136	Jan 2024 Jan 2024 n Baldridge 9.	Co anthor	ontact: ANTHO ny.vancura@ing	900 S 3RD S PADUCAH, H US 420 NY VAN CUF grambarge.cc

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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

F: (615)695-3697