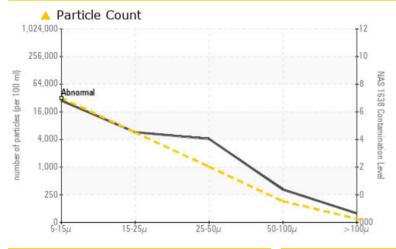
PROBLEM SUMMARY

Area **PU** Machine Id **[PU] 71** Component Auxiliary Power Unit Fluid SKYDROL LD-4 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

The component was not specified so we have determined that this is a auxiliary power unit based on the fluid type in use. Please specify the correct component type on your next sample. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. (Customer Sample Comment: MLG test port G7000)

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	
Particles 15-25µm	count	NAS 1638	>5700	<u> </u>	516	
Particles 25-50µm	count	NAS 1638	>1012	<u> </u>	187	
Particles 50-100µm	count	NAS 1638	>180	<u> </u>	18	
Particles >100µm	count	NAS 1638	>32	<u> </u>	0	

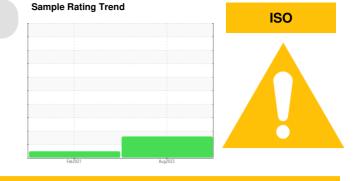
Customer Id: SAFAJA Sample No.: WC0741650 Lab Number: 02576978 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Kevin Marson +1 (289)291-4644 x4644 <u>Kevin.Marson@wearcheck.com</u>

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com



RECOMMENDED ACTIONS							
Action	Status	Date	Done By	Description			
Change Filter			?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.			
Resample			?	We recommend an early resample to monitor this condition.			
Alert			?	The component was not specified so we have determined that this is a auxiliary power unit based on the fluid type in use. Please specify the correct component type on your next sample.			
Information Required			?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.			
Filter Fluid			?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.			

HISTORICAL DIAGNOSIS

12 Feb 2021 Diag: Kevin Marson

NORMAL





Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. The water content is negligible. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. There is no indication of any contamination in the oil. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Sample Rating Trend



DIAGNOSIS

Recommendation

The component was not specified so we have determined that this is a auxiliary power unit based on the fluid type in use. Please specify the correct component type on your next sample. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. (Customer Sample Comment: MLG test port G7000)

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The water content is negligible. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Fluid Condition

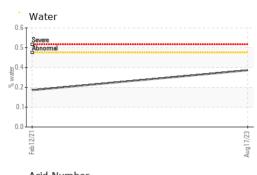
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

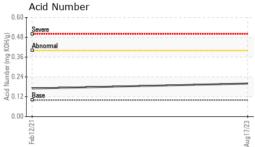
			Feb2021	Aug2023		
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0741650	WC0493758	
Sample Date		Client Info		17 Aug 2023	12 Feb 2021	
Machine Age	hrs	Client Info		0	0	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				ABNORMAL	NORMAL	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)		3	3	
Chromium	ppm	ASTM D5185(m)		0	<1	
Nickel	ppm	ASTM D5185(m)		<1	<1	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)		0	<1	
Aluminum	ppm	ASTM D5185(m)		<1	<1	
Lead	ppm	ASTM D5185(m)		<1	<1	
Copper	ppm	ASTM D5185(m)		4	3	
Tin	ppm	ASTM D5185(m)		0	<1	
Antimony	ppm	ASTM D5185(m)		0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		2	<1	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	9	1	
Barium	ppm	ASTM D5185(m)	0	0	0	
Molybdenum	ppm	ASTM D5185(m)	0	0	0	
Manganese	ppm	ASTM D5185(m)		0	<1	
Magnesium	ppm	ASTM D5185(m)	0	<1	<1	
Calcium	ppm	ASTM D5185(m)	0	3	1	
Phosphorus	ppm	ASTM D5185(m)	20000	28719	39249	
Zinc						
	ppm	ASTM D5185(m)	0	42	19	
Sulfur	ppm ppm	ASTM D5185(m) ASTM D5185(m)			19 1753	
			0	42		
	ppm ppm	ASTM D5185(m)	0	42 1747	1753	
Lithium CONTAMINANTS	ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 1900	42 1747 <1	1753 <1	
Lithium CONTAMINANTS Silicon	ppm ppm	ASTM D5185(m) ASTM D5185(m) method	0 1900	42 1747 <1 current	1753 <1 history1	
Lithium CONTAMINANTS Silicon Sodium	ppm ppm	ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	0 1900	42 1747 <1 <u>current</u> <1	1753 <1 <u>history1</u> <1	 history2
Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	0 1900 limit/base	42 1747 <1 <u>current</u> <1 3	1753 <1 <u>history1</u> <1 2	 history2
Lithium CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 1900 limit/base >20	42 1747 <1 current <1 3 21	1753 <1 history1 <1 2 22	 history2
Lithium CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm % ppm	ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304*	0 1900 limit/base >20 >0.45	42 1747 <1 current <1 3 21 0.343	1753 <1 history1 <1 2 22 0.223	 history2
Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm ppm ppm ppm % ppm	ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304*	0 1900 limit/base >20 >0.45 >4500	42 1747 <1 current <1 3 21 0.343 3432.3	1753 <1 history1 <1 2 22 0.223 2238.6	 history2
Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles 5-15µm	ppm ppm ppm ppm ppm % ppm %	ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304*	0 1900 limit/base >20 >0.45 >4500 limit/base	42 1747 <1 current <1 3 21 0.343 3432.3 current	1753 <1 history1 <1 2 22 0.223 2238.6 history1	 history2 history2
Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles 5-15µm Particles 15-25µm	ppm ppm ppm ppm ppm ppm % ppm \$% ppm \$% Ppm	ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304* Method NAS 1638	0 1900 limit/base >20 >0.45 >4500 limit/base >32000	42 1747 <1 <1 3 21 0.343 3432.3 current 27977	1753 <1 history1 <1 2 22 0.223 2238.6 history1 3679	 history2 history2
Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles 5-15µm Particles 15-25µm Particles 25-50µm	ppm ppm ppm ppm ppm % ppm % ESS count count	ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304* ASTM D6304* MAS 1638 NAS 1638	0 1900 limit/base >20 >0.45 >4500 limit/base >32000 >5700	42 1747 <1 current <1 3 21 0.343 3432.3 current 27977 ▲ 5762	1753 <1 history1 <1 2 22 0.223 2238.6 history1 3679 516	 history2 history2 history2
Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm % ppm % ESS count count count	ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304* MAST A538 NAS 1638 NAS 1638 NAS 1638	0 1900 limit/base >20 >0.45 >4500 limit/base >32000 >5700 >1012	42 1747 <1 current <1 3 21 0.343 3432.3 current 27977 ▲ 5762 ▲ 4124	1753 <1 history1 <1 2 22 0.223 2238.6 history1 3679 516 187	 history2 history2

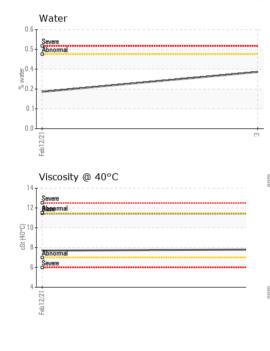
ISO



OIL ANALYSIS REPORT







FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.10	0.20	0.17	
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
Precipitate	scalar	Visual*	NONE	NONE	NONE	
Silt	scalar	Visual*	NONE	NONE	NONE	
Debris	scalar	Visual*	NONE	NONE	NONE	
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
Appearance	scalar	Visual*	NORML	NORML	NORML	
Odor	scalar	Visual*	NORML	NORML	NORML	
Emulsified Water Free Water	scalar scalar	Visual* Visual*	>0.45	NEG NEG	NEG NEG	
FLUID PROPERT		method	limit/base	current	history1	history2
√isc @ 40°C	cSt	ASTM D7279(m)	11.42	7.8	7.7	
SAMPLE IMAGES	5	method	limit/base	current	history1	history2
Color						no image
Bottom						no image
GRAPHS						
Ferrous Alloys				Particle Count	2	
iron			1,024,			12 11
chromium nickel			256,			-10
			128,	- 000		-9
			E 64,0	Abnormal		-8
Feb 12/21			(per 100 m 16'	Abnormal		-7
 Non-ferrous Metal	~		I.6. and I.6.	000		-7 -6 -5 -4 -2
Tion-remous metal	5		art	000		4
copper			o	000 000		-3
tin			2 1,			2
				500 -		
2/21-			7/23	250 -		
Feb 12/21			Aug17/23			000
Viscosity @ 40°C				0 5-15μ 15-25μ Acid Number	25-50µ 50-	100μ >100μ
Severe Severe			(B)H0.6			
			¥0.4	0 - Abnormal		
Abnormal Severe			0.6 (mg K0H/g) 9.0 (mg K0H/g) 9.0 0.0 (mg K0H/g)	0		
			n n cid Nu	Base		
Feb12/21-			Aug17/23	Feb12/21-		7/73.
Feb			Aug	Feb		Aud 17.0
WearCheck - C8-11					Cofron Lon	ding Systems

cSt (40°C) ______

Laboratory

Sample No. Lab Number

Unique Number

Contact: Rob Zane rob.zane@safrangroup.com T: F: (905)683-6983

CALA

ISO 17025:2017 Accredited Laboratory