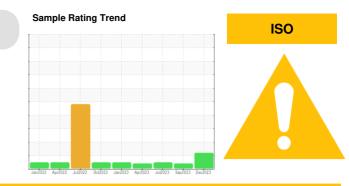


OIL ANALYSIS REPORT

TUMBLE ROOM [98635792] KR-GF-003169 - TUMBLER 3 (S/N TUMBLE ROOM - 11513089) Component

Gearbox Fluic

SCHAEFFER 293A SUPREME GEAR LUBE NO TACK 220 (16 QTS)



Sample DateClient Info20 Dec 202327 Sep 202331 Jul 2023Machine AgehrsClient Info000Oil AgehrsClient Info000Oil AgehrsClient Info000Oil ChangedClient InfoNot ChangdN/AN/ASample StatusImate AgeNot ChangdN/AN/ASample StatusImate AgeImate AgeNot ChangdN/AContaminationContaminationCONTAMINATIONMethodImit/basecurrentMaterWC Method0.2NEGNEGNEGWaterWC Method0.2NEGNEGNEGWeter Is a kigh amount of silt (particulates < 14 trons in size) present in the oil.MethodImit/basecurrenthistory1MaterWC Method0.2NEGNEGNEGNEGWeter Is acceptable for this fluid. TheIronppASTM D5185m>2001112<1	DIAGNOSIS	SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
recommend you service the filters on this weak here set were interval to monitor. (2 ustomer Sample miner: 9885792) 20 bec 2023 27 Sep 2023 31 Juli 2023 ar component were rates are normal. 0 0 0 0 0 component were rates are normal. Chern Info 0 0 0 0 0 component were rates are normal. Contramination rendo of all (particulates < 14)	Recommendation	Sample Number		Client Info		PCA0114843	PCA0106500	PCA0101715
propert in applicable. Resample at the network we introvi to motion: C (customer Sample at the network we introvi to motion): C (customer Sample at the network we introvi to motion): C (customer Sample at the network we introvi to motion): C (customer Sample Status at a network we introvi to motion): C (c	Ne recommend you service the filters on this	Sample Date		Client Info		20 Dec 2023	27 Sep 2023	31 Jul 2023
vide interval to monitor. (Customer Sample ar component wear rates are normal. Oil Apa has a Circlent Info 0 0 0 Contamination rer is a high amount of sill (particulates < 14) is acceptable for this fuid. The dition of the oil is suitable for further service. CONTAMINATION method Immbase current Natory1 Natory1 Natory2 Value of acceptable for this fuid. The dition of the oil is suitable for further service. Year Work Mathod Natory2 NEG NEG NEG Value of acceptable for this fuid. The dition of the oil is suitable for further service. Year Work Mathod Natory2 NEG 0 0 1 12 <	component if applicable. Resample at the next	Machine Age	hrs	Client Info		0		0
or Otil Changed Client Intro Not Change N/A N/A component wear rates are normal. Sontamination ABNORIMAL ABNORIMAL NORIMAL origin size) present in the oil. CONTAMINATION method limitbase current Netary! Netary! id Condition NA were is acceptable for this fuld. The other service. Norigin Size) present in the oil. Norigin Size present in th			hrs	Client Info		0	0	0
Component wear rates are normal. CONTAMINATION Method Imitbase Courternit Nistory2 State CONTAMINATION method limitbase current history2 to condition axia sey present in the 01. ide condition init to 01. init 01. init to 01. init	Comment: 98635792)	Oil Changed		Client Info		Not Changd	N/A	N/A
Contamination pre is a high amount of sit (particulates < 14) ors in size) present in the oil. CONTAMINATION method imitbase current history1 history2 Vare WC Methol 0.0.2 NEG NEG NEG Vare WC Methol 0.0.2 NEG NEG NEG Vare WC Methol 0.0.2 NEG NEG NEG Vare WC Methol 0.0.2 0.0 1 1 2 1 Vare MC Motions Silver ppm ASTM Distion 0 0 1 1 2 1	Vear	Sample Status				ABNORMAL	ABNORMAL	NORMAL
main Mater WC Method >0.2 NEG NEG NEG A Nieval is acceptable for this fluid. The altition of the oil is suitable for further service. Imon ppm ASTM05185 >200 11 12.2 <1		CONTAMINA	TION	method	limit/base	current	history1	history2
WEAR METALS method lumbbase current history1 history2 A Ni woll is acceptable for this fluid. The dillion of the oil is suitable for further service. iron ppm ASTM 05885 >200 11 12 <1	There is a high amount of silt (particulates < 14 nicrons in size) present in the oil.			WC Method		-	NEG	
chromium ppm ASTILD5186m >15 0 0 1 Nickel ppm ASTILD5186m >15 0 0 1 Silver ppm ASTILD5186m >25 0 0 3 Aluminum ppm ASTILD5186m >25 0 0 3 Auminum ppm ASTILD5186m >25 0 0 2 Copper ppm ASTILD5186m >200 0 <1	luid Condition	WEAR METAI	LS	method	limit/base	current	history1	history2
dition of the oil is suitable for further service. Chromium ppm ASTM D5185m >15 0 0 1 Nickel ppm ASTM D5185m >15 0 0 1 Silver ppm ASTM D5185m >25 0 0 3 Aluminum ppm ASTM D5185m >25 0 0 2 Copper ppm ASTM D5185m >25 0 0 2 Vanadium ppm ASTM D5185m >25 0 0 2 Cadmium ppm ASTM D5185m 0 0 0 2 Cadmium ppm ASTM D5185m 0 0 0 1 ADDITIVES method limit/base current Nistory? Nistory? Boro ppm ASTM D5185m 0 0 1 1 ADDITIVES method limit/base current Nistory? Nistory? Barium ppm ASTM D5185m		Iron	ppm	ASTM D5185m	>200	11	12	<1
Titanium ppm ASTIL D5186m 0 0 1 Silver ppm ASTIL D5186m >0 0 3 Auminum ppm ASTIL D5186m >25 0 0 8 Copper ppm ASTIL D5186m >200 0 <1	ondition of the oil is suitable for further service.	Chromium	ppm	ASTM D5185m	>15	0	0	1
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Silver ppm ASTM D5185m Q 0 3 Aluminum ppm ASTM D5185m >200 Q Q Q Lead ppm ASTM D5185m >200 Q <1		Titanium		ASTM D5185m		0	0	1
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Copper ppm ASTM D5185m >200 0 <1 2 Tin ppm ASTM D5185m >25 0 0 2 Vanadium ppm ASTM D5185m 0 0 21 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 1 Marganese ppm ASTM D5185m 0 0 1 Marganese ppm ASTM D5185m 0 -1 1 Marganese ppm ASTM D5185m 0 -1 1 Marganese ppm ASTM D5185m 0 -1 1 Calcium ppm ASTM D5185m 0 1102 12800 1800 Chorshorus ppm ASTM D5185m 0 1800 13805 Suffur ppm ASTM D5185m >20 3 2 3 Sodium ppm ASTM D5185m >20								
Tin ppm ASTM D5185n >25 0 0 2 Vanadium ppm ASTM D5185n 0 0 2 Cadmium ppm ASTM D5185n 0 0 <1								
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Molybdenum ppm ASTM D5185m 0 <1 1 Maganese ppm ASTM D5185m 0 <1		Boron	ppm			0	0	1
Manganese ppm ASTM D5185m <1 <1 <1 <1 Magnesium ppm ASTM D5185m 0 <1			ppm			0	0	0
Magnessium ppm ASTM D5185m 0 <1 19 Calcium ppm ASTM D5185m 0 10 0 Phosphorus ppm ASTM D5185m 250 271 162 Zinc ppm ASTM D5185m 0 18 0 Sulfur ppm ASTM D5185m 0 180 13805 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 3 2 3 Sodium ppm ASTM D5185m >50 3 2 3 Sodium ppm ASTM D5185m >20 2 <1		Molybdenum	ppm	ASTM D5185m		0	<1	1
Calcium ppm ASTM D5185m 0 10 0 Phosphorus ppm ASTM D5185m 250 271 162 Zinc ppm ASTM D5185m 0 18 0 Sulfur ppm ASTM D5185m 11502 12890 13805 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 3 2 3 Sodium ppm ASTM D5185m >50 3 2 3 Sodium ppm ASTM D5185m >50 3 2 3 Potassium ppm ASTM D5185m >20 2 <1		Manganese	ppm	ASTM D5185m		<1	<1	<1
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Zinc ppm ASTM D5185m 0 18 0 Sulfur ppm ASTM D5185m 11502 12890 13805 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 3 2 3 Sodium ppm ASTM D5185m >20 3 2 3 Potassium ppm ASTM D5185m >20 2 <1		Calcium	ppm	ASTM D5185m		0	10	0
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CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50323SodiumppmASTM D5185m4<1		Zinc	ppm	ASTM D5185m		0	18	0
SiliconppmASTM D5185m>50323SodiumppmASTM D5185mC4<144PotassiumppmASTM D5185m>202<1102FLUID CLEANLINESSmethodlimit/basecurrenthistory1history2Particles >4µmASTM D7647>10000& 81950Particles >6µmASTM D7647>2500▲ 13034Particles >6µmASTM D7647>640406Particles >14µmASTM D7647>16068Particles >21µmASTM D7647>16068Particles >38µmASTM D7647>100Particles >71µmASTM D7647>100Oil CleanlinessISO 4406 (c)>20/18/1624/21/16FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2		Sulfur	ppm	ASTM D5185m		11502	12890	13805
Sodium ppm ASTM D5185m 4 <1 44 Potassium ppm ASTM D5185m >20 2 <1		CONTAMINA	NTS	method	limit/base	current	history1	history2
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Oil CleanlinessISO 4406 (c)>20/18/1624/21/16FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2								
				ASTM D/647	>10	U		
Acid Number (AN) mg KOH/g ASTM D8045 0.40 0.05 0.43		Particles >71µm						
		Particles >71µm Oil Cleanliness		ISO 4406 (c)	>20/18/16	4 24/21/16		

Report Id: KRAKIR [WUSCAR] 06047760 (Generated: 01/02/2024 09:18:06) Rev: 1

0.40 0.05 0.43 Submitted By: Wilberto Pacheco Garcia



Acid Number

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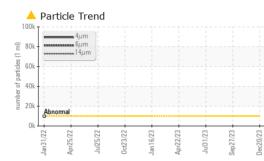
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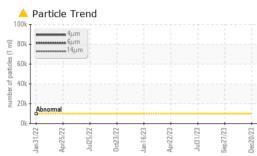
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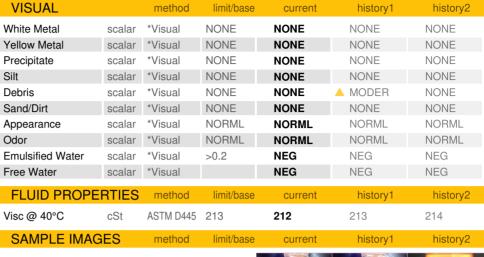
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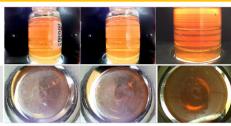
OIL ANALYSIS REPORT





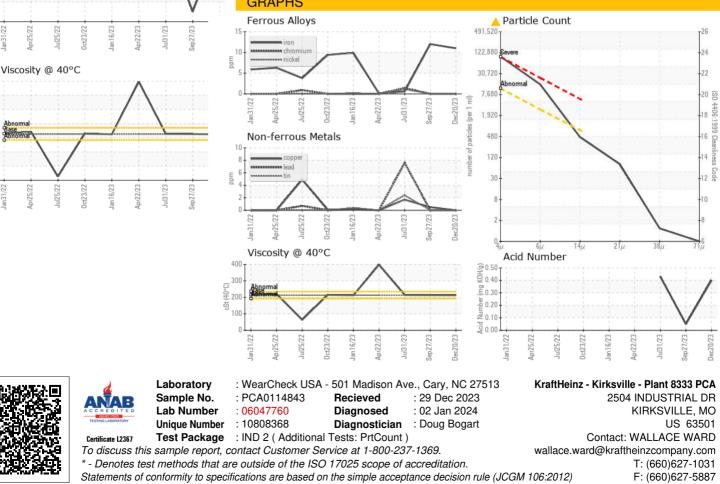


Color



Bottom





Submitted By: Wilberto Pacheco Garcia