

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id Or1981 Component Front Left Planetary Fluid GEAR OIL SAE 90W140 (6 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 90W140. Please confirm.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

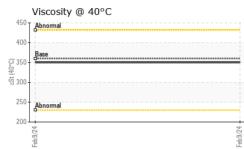
Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION method limit/base current history1 history2 Sample Number Client Info 09 Feb 2024 Machine Age hrs Client Info 10314 Oil Age hrs Client Info 10314 Oil Age hrs Client Info 10314 Oil Age hrs Client Info Changed Sample Status Imit/base current history1 history2 Water WC Method >0.2 NEG WEAR METALS method Imit/base current history1 history2 Iron ppm ASTM 05f8/m >10 -1 WeAR METALS method imit/base current history1 history2 Iron ppm ASTM 05f8/m >10 -1 Silver ppm					Feb2024		
Sample Date Client Info 09 Feb 2024 Machine Age hrs Client Info 10314 Oil Age hrs Client Info 10314 Oil Changed Client Info NORMAL Sample Status NORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >0.2 NEG Chromium ppm ASTM DS185(m) >500 174 Nickel ppm ASTM DS185(m) >10 <1 Nickel ppm ASTM DS185(m) >25 2 Aluminum ppm ASTM DS185(m) >25 <1 Auminum ppm ASTM DS185(m) >55 28 Antimony ppm <	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Date Client Info 09 Feb 2024 Machine Age hrs Client Info 10314 Oil Age hrs Client Info 10314 Sample Status Client Info Changed Sample Status Imit/base current history1 history2 Water WC Method >0.2 NEG Chromium ppm ASTM D5185(m) >500 174 Chromium ppm ASTM D5185(m) >10 <1	Sample Number		Client Info		GFL0092266		
Oil Age hrs Client Info 10314 Oil Changed Client Info Changed Sample Status Imit/base current history1 history2 Water WC Method >0.2 NEG WEAR METALS method imit/base current history1 history2 Iron ppm ASTM D5165(m) >500 174 Chromium ppm ASTM D5165(m) >10 <1			Client Info		09 Feb 2024		
Oil Changed Client Info Changed NORMAL Sample Status method limit/base current history1 history2 Water WC Method >0.2 NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM 05185(m) >500 174 Nickel ppm ASTM 05185(m) >10 <1	Machine Age	hrs	Client Info		10314		
Sample Status Imit Normal CONTAMINATION method limit/base current history1 history2 Water WC Method >0.2 NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185(m) >500 174 Chromium ppm ASTM D5185(m) >10 <1	Oil Age	hrs	Client Info		10314		
Sample Status Imit Normal CONTAMINATION method limit/base current history1 history2 Water WC Method >0.2 NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185(m) >500 174 Chromium ppm ASTM D5185(m) >10 <1	Oil Changed		Client Info		Changed		
Water WC Method >0.2 NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185(m) >500 174 Chromium ppm ASTM D5185(m) >10 <1					NORMAL		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185(m) >500 174 Chromium ppm ASTM D5185(m) >10 <1 Nickel ppm ASTM D5185(m) >10 <1 Titanium ppm ASTM D5185(m) 0 Aluminum ppm ASTM D5185(m) >25 2 Lead ppm ASTM D5185(m) >25 <1 Copper ppm ASTM D5185(m) >75 9 Antimony ppm ASTM D5185(m) >5 28 Antimony ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 Boron ppm ASTM D5185(m) 20 <th>CONTAMINAT</th> <th>ION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	CONTAMINAT	ION	method	limit/base	current	history1	history2
Iron ppm ASTM D5185(m) >500 174 Chromium ppm ASTM D5185(m) >10 <1	Water		WC Method	>0.2	NEG		
Chromium ppm ASTM D5185(m) >10 <1 Nickel ppm ASTM D5185(m) >10 <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel ppm ASTM D5/85(m) >10 <1 Titanium ppm ASTM D5/85(m) 0 Silver ppm ASTM D5/85(m) >25 2 Aluminum ppm ASTM D5/85(m) >25 <1	Iron	ppm	ASTM D5185(m)	>500	174		
Titanium ppm ASTM D5185(m) 0 Silver ppm ASTM D5185(m) 0 Aluminum ppm ASTM D5185(m) >25 2 Lead ppm ASTM D5185(m) >25 <1	Chromium	ppm	ASTM D5185(m)	>10	<1		
Silver ppm ASTM D5185(m) 0 Aluminum ppm ASTM D5185(m) >25 2 Lead ppm ASTM D5185(m) >25 <1	Nickel	ppm	ASTM D5185(m)	>10	<1		
Aluminum ppm ASTM D5185(m) >25 2 Lead ppm ASTM D5185(m) >25 <1	Titanium	ppm	ASTM D5185(m)		0		
Lead ppm ASTM D5185(m) >25 <1 Copper ppm ASTM D5185(m) >75 9 Tin ppm ASTM D5185(m) >50 28 Antimony ppm ASTM D5185(m) >5 28 Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 200 0 Magnaese ppm ASTM D5185(m) 12 0 Magnesium ppm ASTM D5185(m) 12 <1	Silver	ppm	ASTM D5185(m)		0		
Copper ppm ASTM D5185(m) >75 9 Tin ppm ASTM D5185(m) >10 <1	Aluminum	ppm	ASTM D5185(m)	>25	2		
Tin ppm ASTM D5185(m) >10 <1 Antimony ppm ASTM D5185(m) >5 28 Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 400 174 Molybdenum ppm ASTM D5185(m) 200 0 Magnesium ppm ASTM D5185(m) 12 0 Magnesium ppm ASTM D5185(m) 12 <1	Lead	ppm	ASTM D5185(m)	>25	<1		
Antimony ppm ASTM D5185(m) >5 28 Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 200 0 Malybdenum ppm ASTM D5185(m) 12 0 Magnesium ppm ASTM D5185(m) 12 <1	Copper	ppm	ASTM D5185(m)	>75	9		
Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 400 174 Barium ppm ASTM D5185(m) 200 0 Molybdenum ppm ASTM D5185(m) 12 0 Maganese ppm ASTM D5185(m) 12 <1	Tin	ppm	ASTM D5185(m)	>10	<1		
Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 400 174 Barium ppm ASTM D5185(m) 200 0 Molybdenum ppm ASTM D5185(m) 200 0 Manganese ppm ASTM D5185(m) 12 0 Magnesium ppm ASTM D5185(m) 12 <1 Calcium ppm ASTM D5185(m) 150 3 Phosphorus ppm ASTM D5185(m) 125 6 Zinc ppm ASTM D5185(m) 22500 16804 Sulfur ppm ASTM D5185(m) >	Antimony	ppm	ASTM D5185(m)	>5	28		
Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 400 174 Barium ppm ASTM D5185(m) 200 0 Molybdenum ppm ASTM D5185(m) 12 0 Manganese ppm ASTM D5185(m) 12 0 Magnesium ppm ASTM D5185(m) 12 <1 Magnesium ppm ASTM D5185(m) 150 3 Calcium ppm ASTM D5185(m) 1650 1015 Zinc ppm ASTM D5185(m) 22500 16804 Sulfur ppm ASTM D5185(m) 22500 16804 Lithium ppm ASTM D5185(m)	Vanadium	ppm	ASTM D5185(m)		0		
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 400 174 Barium ppm ASTM D5185(m) 200 0 Molybdenum ppm ASTM D5185(m) 12 0 Manganese ppm ASTM D5185(m) 12 <1	Beryllium	ppm	ASTM D5185(m)		0		
Boron ppm ASTM D5185(m) 400 174 Barium ppm ASTM D5185(m) 200 0 Molybdenum ppm ASTM D5185(m) 12 0 Manganese ppm ASTM D5185(m) 12 0 Magnesium ppm ASTM D5185(m) 12 <1	Cadmium	ppm	ASTM D5185(m)		0		
Barium ppm ASTM D5185(m) 200 0 Molybdenum ppm ASTM D5185(m) 12 0 Manganese ppm ASTM D5185(m) 12 0 Magnesium ppm ASTM D5185(m) 12 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185(m) 12 0 Manganese ppm ASTM D5185(m) 12 <1	Boron	ppm	ASTM D5185(m)	400	174		
Manganese ppm ASTM D5185(m) <1 Magnesium ppm ASTM D5185(m) 12 <1	Barium	ppm	ASTM D5185(m)	200	0		
Magnesium ppm ASTM D5185(m) 12 <1 Calcium ppm ASTM D5185(m) 150 3 Phosphorus ppm ASTM D5185(m) 1650 1015 Zinc ppm ASTM D5185(m) 125 6 Sulfur ppm ASTM D5185(m) 22500 16804 Lithium ppm ASTM D5185(m) 22500 16804 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 14 Sodium ppm ASTM D5185(m) 0	Molybdenum	ppm	ASTM D5185(m)	12	0		
Calcium ppm ASTM D5185(m) 150 3 Phosphorus ppm ASTM D5185(m) 1650 1015 Zinc ppm ASTM D5185(m) 125 6 Sulfur ppm ASTM D5185(m) 22500 16804 Lithium ppm ASTM D5185(m) 22500 16804 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 14 Sodium ppm ASTM D5185(m) 0	Manganese	ppm	ASTM D5185(m)		<1		
Phosphorus ppm ASTM D5185(m) 1 650 1015 Zinc ppm ASTM D5185(m) 1 25 6 Sulfur ppm ASTM D5185(m) 22500 16804 Lithium ppm ASTM D5185(m) 22500 16804 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 14 Sodium ppm ASTM D5185(m) 0	Magnesium	ppm	ASTM D5185(m)	12	<1		
Zinc ppm ASTM D5185(m) 125 6 Sulfur ppm ASTM D5185(m) 22500 16804 Lithium ppm ASTM D5185(m) 22500 16804 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 14 Sodium ppm ASTM D5185(m) 0	Calcium	ppm	ASTM D5185(m)	150	3		
Sulfur ppm ASTM D5185(m) 22500 16804 Lithium ppm ASTM D5185(m) 22500 16804 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 14 Sodium ppm ASTM D5185(m) >0	Phosphorus	ppm	ASTM D5185(m)	1650	1015		
Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 14 Sodium ppm ASTM D5185(m) O	-	ppm	ASTM D5185(m)	125	6		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 14 Sodium ppm ASTM D5185(m) 0	Sulfur	ppm	ASTM D5185(m)	22500	16804		
Silicon ppm ASTM D5185(m) >75 14 Sodium ppm ASTM D5185(m) 0	Lithium	ppm	ASTM D5185(m)		<1		
Sodium ppm ASTM D5185(m) 0	CONTAMINAN	TS	method	limit/base	current	history1	history2
Sodium ppm ASTM D5185(m) 0	Silicon	ppm	ASTM D5185(m)	>75	14		
Potassium ppm ASTM D5185(m) >20 <1	Sodium		ASTM D5185(m)		0		
	Potassium	ppm	ASTM D5185(m)	>20	<1		



OIL ANALYSIS REPORT



	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	Visual*	NONE	VLITE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
	Precipitate	scalar	Visual*	NONE	NONE		
			Visual*		NONE		
	Silt	scalar		NONE	-		
	Debris	scalar	Visual*	NONE	NONE		
4	Sand/Dirt	scalar	Visual*	NONE	NONE		
Feb 9/24	Appearance	scalar	Visual*	NORML	NORML		
	Odor	scalar	Visual*	NORML	NORML		
	Emulsified Water	scalar	Visual*	>0.2	NEG		
	Free Water	scalar	Visual*		NEG		
	FLUID PROP	ERTIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D7279(m)	360	350		
	SAMPLE IMA	GES	method	limit/base	current	history1	history2
	Color					no image	no image
	Bottom				(1 + 50 C) (3)	no image	no image
	GRAPHS						1
	Iron (ppm)				Lead (ppm)		
	2000 Severe			150	T :		
	5 1000 J			E 100	Severe		
	Abnormal			50	Abnormal		
	6 + 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10			Feb 9/24	Feb9/24		
				Fel			
	Aluminum (ppm)		30	Chromium (p	pm)	
	Severe				0		
	Abnormal			²⁰	Abnormal		
				0			
	Feb 9/24			Feb9/24	Feb9/24		
	E.			E	Fer		
	Copper (ppm)				Silicon (ppm)		
	200 Severe			300	Sminn		
	톱 100 - Abnormal			툴 ²⁰⁰	Abnormal		
				- 100	T		
	e Feb9/24			Feb9/24	Feb9/24		
				프			
		_			Additives		
	Viscosity @ 40°C	2		1500			
	Viscosity @ 40°C	2		1500	T	1	
	Viscosity @ 40°C	2		1500 1000	calcium	IS	
	Viscosity @ 40°C	2		500	calcium	15	
	Viscosity @ 40°C	2		500	calcium	IS	
tory e No. mber lumber	Viscosity @ 40°C		ived :10 d :14	Edboord 2000	calcium. phosphon. zinc trooperations the second se	rironmental - 720 - 17125 Mc	Lafleche - Land Lafleche Roa Dose Creek, C CA KOC 1V narles Berger

To discuss this sample Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

> Submitted By: Charles Bergeron Page 2 of 2

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