

OIL ANALYSIS REPORT

Sample Rating Trend



TSI Machine Id TSI 12861 Component Front Differential Fluid GEAR OIL SAE 75W90 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample. Please note that this is a corrected copy for laboratory data updates of elemental data.

🔺 Wear

Moderate concentration of visible metal present. All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

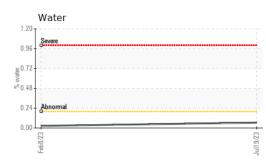
Fluid Condition

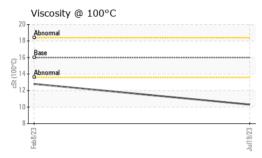
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

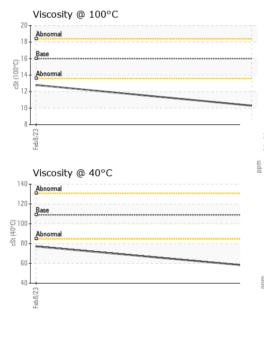
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0843153	WC0771161	
Sample Date		Client Info		19 Jul 2023	08 Feb 2023	
Machine Age	mls	Client Info		80506	0	
Oil Age	mls	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				ABNORMAL	ABNORMAL	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	235	18	
Chromium	ppm	ASTM D5185m	>10	<1	<1	
Nickel	ppm	ASTM D5185m	>10	0	0	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m		0	<1	
Aluminum	ppm	ASTM D5185m	>25	2	<1	
Lead	ppm	ASTM D5185m	>25	0	<1	
Copper	ppm	ASTM D5185m	>100	<1	<1	
Tin	ppm	ASTM D5185m	>10	<1	0	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		<1	<1	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	400	259	281	
Barium	ppm	ASTM D5185m	200	0	5	
Molybdenum	ppm	ASTM D5185m	12	0	0	
Manganese	ppm	ASTM D5185m		6	3	
Magnesium	ppm	ASTM D5185m	12	<1	1	
Calcium	ppm	ASTM D5185m	150	0	8	
Phosphorus	ppm	ASTM D5185m	1650	1577	1378	
Zinc	ppm	ASTM D5185m	125	0	10	
Sulfur	ppm	ASTM D5185m	22500	25056	28146	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	12	15	
Sodium	ppm	ASTM D5185m		4	9	
Potassium	ppm	ASTM D5185m	>20	1	1	
Water	%	ASTM D6304	>.2	0.065	0.026	
ppm Water	ppm	ASTM D6304	>2000	658.7	264.0	
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000		▲ 110113	
Particles >6µm		ASTM D7647	>5000		<u> </u>	
Particles >14µm		ASTM D7647	>640		71	
Particles >21µm		ASTM D7647	>160		5	
Particles >38µm		ASTM D7647	>40		0	
Particles >71µm		ASTM D7647	>10		0	
Oil Cleanliness		ISO 4406 (c)	>21/19/16		▲ 24/22/13	
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	2.00	2.23	2.58	



OIL ANALYSIS REPORT







Yellow Metal scalar 'Visual NONE N Precipitate scalar 'Visual NONE N Silt scalar 'Visual NONE N Sand/Dirit scalar 'Visual NONE N Appearance scalar 'Visual NORML N Appearance scalar 'Visual NORML N Codor scalar 'Visual NORML N Free Water scalar 'Visual NORML N FullD PROPERTIES method limit/base Visc @ 40°C cSt ASTM D445 109 5' Visc @ 100°C cSt ASTM D445 109 5' Visc @ 100°C cSt ASTM D445 10.0 11 Viscosity Index (VI) Scale ASTM D2270 157 1' SAMPLE IMAGES method limit/base Color Bottom GRAPHS Ferrous Alloys Tomo ferrous Metals	ODER NONE ONE NONE ONE NONE ONE NONE ONE NONE ONE LIGHT ONE NONE ONE NORML ORML NORML ORML NORML ORML NORML Current history1 history2 7.3 77.1 70 166 Current history1 history2 Image Image Image
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60+	ormal
Feb.8(23	
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0843153 Received : 21 Aug 2023 Lab Number : 05930341 Diagnosed : 24 Aug 2023 Unique Number : 10615612 Diagnostician : Doug Bogart Test Package : MOB 2 (Additional Tests: KF, KV100, PrtCount, VI) discuss this sample report, contact Customer Service at 1-800-237-1369.	

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

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