

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **CR143 - T-241** Component **Inner Differential** Fluid **GEAR OIL SAE 90W140 (--- QTS)**

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. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

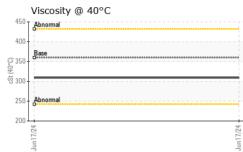
Fluid Condition

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

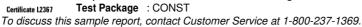
Oil Age mis Client Info 0 Oil Changed Client Info N/A Sample Status Imelhod Imil/base current history1 history2 CONTAMINATION method imil/base current history1 history2 Water WC Method >.2 NEG WEAR METALS method imil/base current history1 history2 Iron ppm ASTM D5165n >500 12 Chromium ppm ASTM D5155n >10 <1 Silver ppm ASTM D5155n >25 2 Aluminum ppm ASTM D5155n >10 <1 Silver ppm ASTM D5155n >10 <1 Auminum ppm ASTM D5155n >10 <1 Cadmium ppm ASTM D5155n 10 <1 ADDTIVES method imil/base current history1 Maganesi ppm ASTM D5155n <	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Date Client Info 17 Jun 2024 Machine Age mis Client Info 0 Oil Age mis Client Info 0 Oil Changed Client Info N/A Sample Status Client Info N/A CONTAMINATION method limi/base current history1 history2 Water WC Method >.2 NEG VEAR METALS method limi/base current history1 history2 Viran ppm ASTM D5185m >10 <1	Sample Number		Client Info		WC0941894		
Machine Age mis Client Info 0 Oil Agage mis Client Info 0 Sample Status I Imathod N/A CONTAMINATION WC Method >.2 NEG WEAR METALS WC Method >.2 NEG WEAR METALS WC Method >.2 NEG WEAR METALS WC Method >.2 NEG Nickel ppm ASTM D5165m >500 12 Itanium ppm ASTM D5165m >10 -1 Silver ppm ASTM D5165m >10 -1 Copper ppm ASTM D5165m >25 <1			Client Info		17 Jun 2024		
Oil Changed Client Info N/A Sample Status Image of the status Image of the status Image of the status Image of the status CONTAMINATION method Imit/base current History1 History2 Warer WC Method >.2 NEG Image of the status WEAR METALS method Imit/base current History1 History2 WEAR METALS method Imit/base current History1 History2 Iron ppm ASTM D5185m >10 <1 Okckel ppm ASTM D5185m >10 <1 Aluminum ppm ASTM D5185m >10 <1 Aduminum ppm ASTM D5185m >10 <1 Adaminum ppm ASTM D5185m 20 0 Adamin	Machine Age	mls	Client Info		0		
Sample Status method imit/base current history1 history2 Water WC Method >.2 NEG WEAR METALS method imit/base current history1 history2 Iron ppm ASTM D5185m >500 12 Chromium ppm ASTM D5185m >10 <1	Oil Age	mls	Client Info		0		
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Water WC Method >.2 NEG WEAR METALS method limi/base current history1 history2 Iron ppm ASTM D5185m >500 12 Chromium ppm ASTM D5185m >10 <1 Nickel ppm ASTM D5185m >10 <1 Aluminum ppm ASTM D5185m >25 2 Aluminum ppm ASTM D5185m >25 2 Aluminum ppm ASTM D5185m >10 1 Adadium ppm ASTM D5185m 10 <1 Vanadium ppm ASTM D5185m 10 <1 Addium ppm ASTM D5185m 12 1 Vanadium ppm ASTM D5185m 12 <t< th=""><th>Sample Status</th><th></th><th></th><th></th><th>NORMAL</th><th></th><th></th></t<>	Sample Status				NORMAL		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >500 12 Chromium ppm ASTM D5185m >10 <1 Nickel ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m 2 Aluminum ppm ASTM D5185m >25 2 Aluminum ppm ASTM D5185m >10 1 Adaminum ppm ASTM D5185m >10 1 Vanadium ppm ASTM D5185m >10 1 Adaminum ppm ASTM D5185m 10 <1 Adaminum ppm ASTM D5185m 12 1 Adaminum ppm ASTM D5185m 12 </th <th>CONTAMINATIO</th> <th>N</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	CONTAMINATIO	N	method	limit/base	current	history1	history2
Iron ppm ASTM D5185m >500 12 Chromium ppm ASTM D5185m >10 <1 Nickel ppm ASTM D5185m >10 <1 Silver ppm ASTM D5185m >25 2 Aluminum ppm ASTM D5185m >25 2	Water		WC Method	>.2	NEG		
Prom ASTM D5185m >10 <1 Nickel ppm ASTM D5185m >10 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >10 <1 Titanium ppm ASTM D5185m 0 Sliver ppm ASTM D5185m 22 Aluminum ppm ASTM D5185m >25 2 Copper ppm ASTM D5185m >25 <1	Iron	ppm	ASTM D5185m	>500	12		
Titanium ppm ASTM D5185m <1 Silver ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m >25 2 Aluminum ppm ASTM D5185m >25 2 Copper ppm ASTM D5185m >25 1 Vanadium ppm ASTM D5185m >25 1 ADDITIVES ppm ASTM D5185m >10 <1	Chromium	ppm	ASTM D5185m	>10	<1		
Silver ppm ASTM D5185m >25 2 Aluminum ppm ASTM D5185m >25 2 Lead ppm ASTM D5185m >25 <1	Nickel	ppm	ASTM D5185m	>10	<1		
Aluminum ppm ASTM D5185m >25 2 Lead ppm ASTM D5185m >25 <1	Titanium	ppm	ASTM D5185m		<1		
Lead ppm ASTM D5185m >25 <1 Copper ppm ASTM D5185m >100 1 Tin ppm ASTM D5185m >10 <1	Silver	ppm	ASTM D5185m		0		
Lead ppm ASTM D5185m >25 <1 Copper ppm ASTM D5185m >100 1 Vanadium ppm ASTM D5185m >10 <1	Aluminum	ppm	ASTM D5185m	>25	2		
Tin ppm ASTM D5185m >10 <1 Vanadium ppm ASTM D5185m <1	Lead		ASTM D5185m	>25	<1		
TinppmASTM D5185m>10<1VanadiumppmASTM D5185m<1	Copper		ASTM D5185m	>100	1		
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ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m400222BariumppmASTM D5185m2000MolybdenumppmASTM D5185m121ManganeseppmASTM D5185m124MagnesiumppmASTM D5185m124CalciumppmASTM D5185m15040PhosphorusppmASTM D5185m1650801ZincppmASTM D5185m12533SulfurppmASTM D5185m2250020868CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>752VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONEYellow Metalscalar*VisualNONENONESilitscalar*VisualNONENONESilitscalar*VisualNONENONESilitscalar*VisualNONENONESodormppascalar*VisualNONESoloumppasca	Vanadium	ppm	ASTM D5185m		<1		
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BariumppmASTM D5185m2000MolybdenumppmASTM D5185m121ManganeseppmASTM D5185m124MagnesiumppmASTM D5185m124CalciumppmASTM D5185m15040PhosphorusppmASTM D5185m1650801ZincppmASTM D5185m12533SulfurppmASTM D5185m2250020868SulfurppmASTM D5185m2250020868SoliconppmASTM D5185m>752SodiumppmASTM D5185m>201VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNORMLNORMLQdorscalar*VisualNORMLNORMLSutescalar*VisualNORMLNORML	ADDITIVES		method	limit/base	current	history1	history2
MolybdenumppmASTM D5185m121ManganeseppmASTM D5185m124MagnesiumppmASTM D5185m124CalciumppmASTM D5185m15040PhosphorusppmASTM D5185m1650801ZincppmASTM D5185m12533SulfurppmASTM D5185m2250020868SulfurppmASTM D5185m2250020868SoliconppmASTM D5185m>752SodiumppmASTM D5185m>201VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONEYellow Metalscalar*VisualNONESiltscalar*VisualNONENONESiltscalar*VisualNONENONESiltscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLGodorscalar*VisualNORMLNORMLAppearancescalar*Visual <td>Boron</td> <td>ppm</td> <td>ASTM D5185m</td> <td>400</td> <th>222</th> <td></td> <td></td>	Boron	ppm	ASTM D5185m	400	222		
MaganeseppmASTM D5185m<1MagnesiumppmASTM D5185m124CalciumppmASTM D5185m15040PhosphorusppmASTM D5185m1650801ZincppmASTM D5185m12533SulfurppmASTM D5185m2250020868CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>752VOTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>752VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONESiltscalar*VisualNONENONESiltscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLCodorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>.2NEG <td>Barium</td> <td>ppm</td> <td>ASTM D5185m</td> <td>200</td> <th>0</th> <td></td> <td></td>	Barium	ppm	ASTM D5185m	200	0		
MagnesiumppmASTM D5185m124CalciumppmASTM D5185m15040PhosphorusppmASTM D5185m1650801ZincppmASTM D5185m12533SulfurppmASTM D5185m2250020868CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>752SodiumppmASTM D5185m>201VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONESiltscalar*VisualNONENONESiltscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLAppearancescalar*VisualNORMLNORMLCodorscalar*VisualNORMLNORMLSulfscalar*VisualNORMLNORMLSulfscalar*VisualNORMLNORML	Molybdenum	ppm	ASTM D5185m	12	1		
CalciumppmASTM D5185m15040PhosphorusppmASTM D5185m1650801ZincppmASTM D5185m12533SulfurppmASTM D5185m2250020868CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>752SodiumppmASTM D5185m>201PotassiumppmASTM D5185m>201VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONESiltscalar*VisualNONENONESiltscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLCodorscalar*VisualNORMLNORMLCodorscalar*VisualNORMLNORMLCodorscalar*VisualNORMLNORMLCodorscalar*VisualNORMLNORMLCodor<	Manganese	ppm	ASTM D5185m		<1		
PhosphorusppmASTM D5185m1650801ZincppmASTM D5185m12533SulfurppmASTM D5185m2250020868CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>752SodiumppmASTM D5185m>752PotassiumppmASTM D5185m>201VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*VisualNORMLNEGStalar*VisualNORMLNORMLSuddNORMLNORMLNORMLSuddNORMLNORMLNORMLSudd <td>Magnesium</td> <td>ppm</td> <td>ASTM D5185m</td> <td>12</td> <th>4</th> <td></td> <td></td>	Magnesium	ppm	ASTM D5185m	12	4		
ZincppmASTM D5185m12533SulfurppmASTM D5185m2250020868CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>752SodiumppmASTM D5185m>752PotassiumppmASTM D5185m>201VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONESiltscalar*VisualNONENONESiltscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>-2NEG	Calcium	ppm	ASTM D5185m	150	40		
SulfurppmASTM D5185m2250020868CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>752SodiumppmASTM D5185m>752PotassiumppmASTM D5185m>201VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLQdorscalar*VisualNORMLNORMLEmulsified Waterscalar*VisualNORML	Phosphorus	ppm	ASTM D5185m	1650	801		
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m<>752SodiumppmASTM D5185m3PotassiumppmASTM D5185m>201VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLQdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>-2NEG	Zinc	ppm	ASTM D5185m	125	33		
SiliconppmASTM D5185m>752SodiumppmASTM D5185m3PotassiumppmASTM D5185m>201VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>.2NEG	Sulfur	ppm	ASTM D5185m	22500	20868		
SodiumppmASTM D5185m3PotassiumppmASTM D5185m>201VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>.2NEG	CONTAMINANTS	3	method	limit/base	current	history1	history2
PotassiumppmASTM D5185m>201VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>.2NEG	Silicon	ppm	ASTM D5185m	>75	2		
VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>.2NEG	Sodium	ppm	ASTM D5185m		3		
White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>.2NEG	Potassium	ppm	ASTM D5185m	>20	1		
Yellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>.2NEG	VISUAL		method	limit/base	current	history1	history2
Precipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>.2NEG	White Metal	scalar	*Visual	NONE	NONE		
Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>.2NEG	Yellow Metal	scalar	*Visual	NONE	NONE		
Debrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>.2NEG	Precipitate	scalar	*Visual	NONE	NONE		
Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>.2NEG	Silt	scalar	*Visual	NONE	NONE		
Appearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>.2NEG	Debris	scalar	*Visual	NONE	NONE		
Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >.2 NEG	Sand/Dirt	scalar	*Visual	NONE	NONE		
Emulsified Water scalar *Visual >.2 NEG	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
Free Water scalar *Visual NEG	Emulsified Water	scalar	*Visual	>.2	NEG		
	Free Water	scalar	*Visual		NEG		



OIL ANALYSIS REPORT



FLUID	PROPERTIES	method	limit/base	current	history1	history2
Visc @ 4	40°C cSt	ASTM D445	360	309		
SAMP	PLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image
GRAP	PHS					
Ferrou	ıs Alloys					
10 8 udd 4 2 0 FZ/L[un] Non-fe 10 7 6 4 3 2 10 10 10 10 10 10 10 10 10 10	errous Metals		Jun17/24			
			Juni17/24			
ample No. : WC09418 ab Number : 06212103 nique Number : 11084967 est Package : CONST	B Tes	ceived : 17 sted : 18 ignosed : 18	' Jun 2024 3 Jun 2024 Jun 2024 - V		Contact:	GENCY GROUP 4401 REX RD IDSWOOD, TX US 77546 NOEL GARZA



* - 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)

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T:

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