

PROBLEM SUMMARY

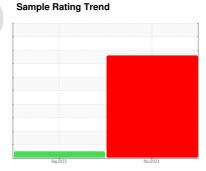
WEAR



FORD W5G-550 CHASSI FBK6202 (S/N 1FD0W5GT2KEC15019)

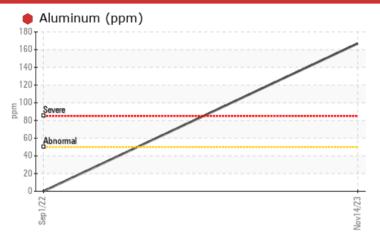
Transmission (Auto)

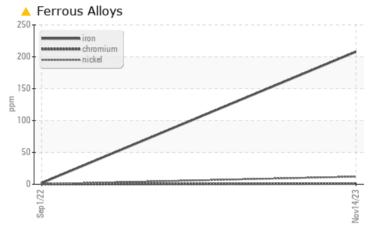
NOT GIVEN (--- GAL)





COMPONENT CONDITION SUMMARY





RECOMMENDATION

We recommend that you drain the fluid and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS								
Sample Status				SEVERE	NORMAL			
Iron	ppm	ASTM D5185m	>160	^ 208	2			
Nickel	ppm	ASTM D5185m	>5	12	<1			
Aluminum	ppm	ASTM D5185m	>50	167	0			

Customer Id: AR1050BRI **Sample No.:** ARI0006448 Lab Number: 06007931 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:

Don Baldridge +1 don.b505@comcast.net

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description		
Inspect Wear Source			?	We advise that you inspect for the source(s) of wear.		
Change Fluid			?	We recommend that you drain the fluid and perform a filter service on this component if not already done.		
Change Filter			?	We recommend that you drain the fluid and perform a filter service on this component if not already done.		
Resample			?	We recommend an early resample to monitor this condition.		

HISTORICAL DIAGNOSIS

01 Sep 2022 Diag: Don Baldridge

NORMAL



Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the fluid. The condition of the fluid is acceptable for the time in service.





OIL ANALYSIS REPORT

Area **2H28**

FORD W5G-550 CHASSI FBK6202 (S/N 1FD0W5GT2KEC15019)

Transmission (Auto)

NOT GIVEN (--- GAL)

Sample Rating Trend



DIAGNOSIS

Recommendation

We recommend that you drain the fluid and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear

The iron level is abnormal. The aluminum is severe. Bearing, clutch or torque converter wear is indicated.

Contamination

There is no indication of any contamination in the fluid.

Fluid Condition

The fluid is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION method lmilt/base current history1 history2				Sep2022	Nov2023		
Sample Number Client Info ARI0006448 ARI0006409	SAMPLE INFOR	MATION	method			history1	history2
Sample Date Client Info 14 Nov 2023 01 Sep 2022		VII (TIOI)		mm base		,	•
Machine Age mls Client Info 140100 108505	•						
Oil Age mls Client Info 32000 0 Oil Changed Client Info Not Changd Not Changd Sample Status SEVERE NORMAL WEAR METALS method limit/base current history2 Iron ppm ASTM D5185m >160 208 2 Chromium ppm ASTM D5185m >5 1 0 Nickel ppm ASTM D5185m >5 1 0 Silver ppm ASTM D5185m >5 <1	•						
Not Changed Sample Status							
VEAR METALS	•	mis				· ·	
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >16.0 △ 208 2	<u> </u>		Client Info			Ü	
Chromium	Sample Status					NORMAL	
Chromium ppm ASTM D5185m >5 1 0	WEAR METALS		method	limit/base	current	history1	history2
Nickel		ppm	710 1111 20 100111				
Titanium ppm ASTM D5185m <1 0	Chromium	ppm	ASTM D5185m	>5	1	0	
Silver	Nickel	ppm	ASTM D5185m	>5	<u> </u>	<1	
Aluminum	Titanium	ppm	ASTM D5185m		<1	0	
Lead	Silver	ppm	ASTM D5185m	>5	<1	0	
Copper ppm ASTM D5185m >22.5 71 <1 Tin ppm ASTM D5185m >10 10 0 Vanadium ppm ASTM D5185m <1	Aluminum	ppm	ASTM D5185m	>50	167	0	
Tin	Lead	ppm	ASTM D5185m	>50	8	0	
Vanadium ppm ASTM D5185m <1 0 Cadmium ppm ASTM D5185m <1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 62 8 Barium ppm ASTM D5185m 0 2 Molybdenum ppm ASTM D5185m 18 <1 Manganese ppm ASTM D5185m 54 <1 Magnesium ppm ASTM D5185m 2 13 Calcium ppm ASTM D5185m 209 163 Phosphorus ppm ASTM D5185m 209 163 Zinc ppm ASTM D5185m 0 26 Sulfur ppm ASTM D5185m 1350 723 CONTAMINANTS method limit/base current history1 histor	Copper	ppm	ASTM D5185m	>225	71	<1	
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 62 8 Boron ppm ASTM D5185m 0 2 Molybdenum ppm ASTM D5185m 18 <1	Tin	ppm	ASTM D5185m	>10	10	0	
ADDITIVES	Vanadium	ppm	ASTM D5185m		<1	0	
Boron	Cadmium	ppm	ASTM D5185m		<1	0	
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum	Boron	ppm	ASTM D5185m		62	8	
Manganese ppm ASTM D5185m 54 <1 Magnesium ppm ASTM D5185m 2 13 Calcium ppm ASTM D5185m 209 163 Phosphorus ppm ASTM D5185m 0 26 Zinc ppm ASTM D5185m 0 26 Sulfur ppm ASTM D5185m 1350 723 Sulfur ppm ASTM D5185m 20 20 7 Sodium ppm ASTM D5185m >20 20 7 Sodium ppm ASTM D5185m >20 5 4 Potassium ppm ASTM D5185m >20 5 4 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Vi	Barium	ppm	ASTM D5185m		0	2	
Magnesium ppm ASTM D5185m 2 13 Calcium ppm ASTM D5185m 136 230 Phosphorus ppm ASTM D5185m 209 163 Zinc ppm ASTM D5185m 0 26 Sulfur ppm ASTM D5185m 1350 723 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 20 7 Sodium ppm ASTM D5185m >20 5 4 Potassium ppm ASTM D5185m >20 5 4 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE Yellow Metal scalar	Molybdenum	ppm	ASTM D5185m		18	<1	
Calcium ppm ASTM D5185m 136 230 Phosphorus ppm ASTM D5185m 209 163 Zinc ppm ASTM D5185m 0 26 Sulfur ppm ASTM D5185m 1350 723 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 20 7 Sodium ppm ASTM D5185m >20 5 4 Potassium ppm ASTM D5185m >20 5 4 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE Yellow Metal sca	Manganese	ppm	ASTM D5185m		54	<1	
Phosphorus ppm ASTM D5185m 209 163 Zinc ppm ASTM D5185m 0 26 Sulfur ppm ASTM D5185m 1350 723 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 20 7 Sodium ppm ASTM D5185m >20 5 4 Potassium ppm ASTM D5185m >20 5 4 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE<	Magnesium	ppm	ASTM D5185m		2	13	
Zinc ppm ASTM D5185m 0 26 Sulfur ppm ASTM D5185m 1350 723 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 20 7 Sodium ppm ASTM D5185m >20 5 4 Potassium ppm ASTM D5185m >20 5 4 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	Calcium	ppm	ASTM D5185m		136	230	
Sulfur ppm ASTM D5185m 1350 723 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 20 7 Sodium ppm ASTM D5185m >20 5 4 Potassium ppm ASTM D5185m >20 5 4 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 Precipitate scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt <t< td=""><td>Phosphorus</td><td>ppm</td><td>ASTM D5185m</td><td></td><td>209</td><td>163</td><td></td></t<>	Phosphorus	ppm	ASTM D5185m		209	163	
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 20 7 Sodium ppm ASTM D5185m 11 <1	Zinc	ppm	ASTM D5185m		0	26	
Silicon ppm ASTM D5185m >20 20 7 Sodium ppm ASTM D5185m 11 <1 Potassium ppm ASTM D5185m >20 5 4 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 NORML Odor scalar *Visual	Sulfur	ppm	ASTM D5185m		1350	723	
Sodium	CONTAMINANTS	3	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 5 4 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 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 Codor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG	Silicon	ppm	ASTM D5185m	>20	20	7	
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 scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG	Sodium	ppm	ASTM D5185m		11	<1	
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 scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG	Potassium	ppm	ASTM D5185m	>20	5	4	
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 scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG	VISUAL		method	limit/base	current	history1	history2
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 scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG	White Metal	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 scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG	Yellow Metal	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 scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG	Precipitate	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 scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG	Silt	scalar	*Visual	NONE	NONE	NONE	
Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG	Debris	scalar	*Visual	NONE	NONE	NONE	
Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Emulsified Water scalar *Visual NEG NEG Free Water scalar *Visual NEG NEG	Appearance	scalar	*Visual	NORML	NORML	NORML	
Free Water scalar *Visual NEG NEG	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	
FLUID PROPERTIES method limit/base current history1 history2	Free Water	scalar	*Visual		NEG	NEG	
	FLUID PROPER	ΓIES	method	limit/base	current	history1	history2

Visc @ 40°C

cSt

ASTM D445



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10741693

: ARI0006448 : 06007931 Test Package : CONST

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 14 Nov 2023 Diagnosed : 16 Nov 2023 Diagnostician : Don Baldridge

INSITUFORM TECHNOLOGIES, INC 12820 PENNRIDGE DRIVE BRIDGETON, MO

US 63044

Contact: NEIL STRAUSSNER NSTRAUSSNER@INSITUFORM.COM T: (314)409-4371

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - 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)