

Machine Id HITACHI 210-6 1ffdc571jmf341002 Component Right Final Drive Fluid JOHN DEERE GL-5 80W90 (--- GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Time on oil not given.

WEAR

Gear wear is indicated.

CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate aluminasilicate (coarse dirt) ingress.

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0213404	JR0213344	JR0205127
Sample Date		Client Info		07 May 2024	03 May 2024	11 Apr 2024
Machine Age	hrs	Client Info		2943	2943	2925
Oil Age	hrs	Client Info		0	29	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	ABNORMAL	SEVERE
PQ		ASTM D8184	>1250	209	283	1108
Iron	ppm	ASTM D5185m	>750	408	416	▲ 2321
Chromium	ppm	ASTM D5185m	>9	3	3	▲ 21
Nickel	ppm	ASTM D5185m	>10	0	<1	6
Titanium	ppm	ASTM D5185m		2	3	15
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>40	24	23	129
Lead	ppm	ASTM D5185m	>15	0	<1	1
Copper	ppm	ASTM D5185m	>40	<1	1	5
Tin	ppm	ASTM D5185m	>10	<1	0	1
Vanadium	ppm	ASTM D5185m		0	0	2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	maa	ASTM D5185m	>75	110	107	6 40
				-		
Potassium	ppm	ASTM D5185m	>20	1	4	17
Potassium Water	ppm	ASTM D5185m WC Method	>20 >0.075	1 NEG	4 NEG	17 NEG
Potassium Water Silt	ppm scalar	ASTM D5185m WC Method *Visual	>20 >0.075 NONE	1 NEG NONE	4 NEG LIGHT	17 NEG NONE
Potassium Water Silt Debris	ppm scalar scalar	ASTM D5185m WC Method *Visual	>20 >0.075 NONE NONE	1 NEG NONE NONE	4 NEG LIGHT NONE	17 NEG NONE NONE
Potassium Water Silt Debris Sand/Dirt	ppm scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual	>20 >0.075 NONE NONE	1 NEG NONE NONE NONE	4 NEG LIGHT NONE NONE	17 NEG NONE NONE
Potassium Water Silt Debris Sand/Dirt Appearance	ppm scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>20 >0.075 NONE NONE NORML	1 NEG NONE NONE NONE NORML	4 NEG LIGHT NONE NONE NORML	17 NEG NONE NONE NONE NORML
Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm scalar scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	>20 >0.075 NONE NONE NORML NORML	1 NEG NONE NONE NORE NORML	4 NEG LIGHT NONE NONE NORML NORML	17 NEG NONE NONE NORML NORML
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	>20 >0.075 NONE NONE NORML NORML >0.075	1 NEG NONE NONE NORML NORML NEG	4 NEG LIGHT NONE NONE NORML NORML NEG	17 NEG NONE NONE NORML NORML NEG
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm scalar scalar scalar scalar scalar scalar gppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 >0.075 NONE NONE NORML NORML >0.075	1 NEG NONE NONE NORML NORML NEG	4 NEG LIGHT NONE NORML NORML NEG	17 NEG NONE NONE NORML NORML NEG 11
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>20 >0.075 NONE NONE NORML >0.075 >51	1 NEG NONE NONE NORML NORML NEG 2 20	4 NEG LIGHT NONE NORML NORML NEG 0 25	17 NEG NONE NONE NORML NORML NEG 11 34
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>20 >0.075 NONE NONE NORML >0.075 >51	1 NEG NONE NONE NORML NEG 2 20 <1	4 NEG LIGHT NONE NORML NORML NEG 0 25 0	17 NEG NONE NONE NORML NORML NEG 11 34 2
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.075 NONE NONE NORML NORML >0.075 >51	1 NEG NONE NONE NORML NORML NEG 2 20 <1 <1	4 NEG LIGHT NONE NORML NORML NEG 0 25 0 1	17 NEG NONE NONE NORML NORML NEG 11 34 2 5
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.075 NONE NONE NORML >0.075 >51	1 NEG NONE NONE NORML NORML NEG 2 20 <1 <1 <1 4	4 NEG LIGHT NONE NORML NORML NEG 0 25 0 25 0 1 4	17 NEG NONE NONE NORML NORML NEG 11 34 2 5 5 20
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.075 NONE NONE NORML >0.075 >51	1 NEG NONE NONE NORML NEG 2 20 <1 <1 <1 4 13	4 NEG LIGHT NONE NORML NORML NEG 0 25 0 25 0 1 4 4	17 NEG NONE NONE NORML NORML NEG 11 34 2 5 20 17
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.075 NONE NONE NORML >0.075 >51	1 NEG NONE NONE NORML NEG 2 20 <1 <1 <1 4 13 360	4 NEG LIGHT NONE NORML NORML NEG 0 25 0 25 0 1 4 4 16 367	17 NEG NONE NONE NORML NORML NEG 11 34 2 5 20 17 100
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.075 NONE NONE NORML >0.075 >51	1 NEG NONE NONE NORML NORML 2 20 <1 <1 <1 4 13 360 639	4 NEG LIGHT NONE NORML NORML NEG 0 25 0 25 0 1 4 4 16 367 688	17 NEG NONE NONE NORML NEG 11 34 2 5 20 17 100 686
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.075 NONE NONE NORML >0.075 >51	1 NEG NONE NONE NORML NEG 2 20 <1 <1 <1 4 13 360 639 152	4 NEG LIGHT NONE NORML NORML NEG 0 25 0 25 0 1 4 16 367 688 153	17 NEG NONE NONE NORML NEG 11 34 2 5 20 17 17 100 686 48
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.075 NONE NONE NORML >0.075 >51	1 NEG NONE NONE NORML NEG 2 20 <1 <1 <1 4 13 360 639 152 20643	4 NEG LIGHT NONE NORML NORML NEG 0 25 0 25 0 1 4 16 367 688 153 21819	17 NEG NONE NONE NORML NEG 11 34 2 5 20 17 100 686 48 22955



JRE - GREENSBORO Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : JR0213404 Received 411 SOUTH REGIONAL ROAD :09 May 2024 Ē, Lab Number : 06174190 GREENSBORO, NC Tested : 10 May 2024 : 10 May 2024 - Doug Bogart Unique Number : 11020243 US 27409 Diagnosed Test Package : CONST (Additional Tests: PQ) Contact: CHRIS FRAZIER Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. cfrazier@jamesriverequipment.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: F: (336)665-9556 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)