

[W65387] Machine Id HITACHI 210LC-5 1FFDCJ70TEE330472 Component Right Final Drive Fluid JOHN DEERE GL-5 80W90 (2 GAL)

RECOMMENDATION

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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 advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. (Customer Sample Comment: W65387)

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		JR0189051	JR0206584	JR0179052
	Sample Date		Client Info		18 Mar 2024	01 Mar 2024	02 Aug 2023
	Machine Age	hrs	Client Info		8984	8984	8468
	Oil Age	hrs	Client Info		7491	8007	7491
	Filter Age	hrs	Client Info		0	8007	0
	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
	Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
	Sample Status				SEVERE	SEVERE	ATTENTION
	PQ		ASTM D8184		452	1 441	17
	Iron	ppm	ASTM D5185m	>500	1958	A 3183	2
	Chromium	ppm	ASTM D5185m	>10	1 4	A 20	0
	Nickel	ppm	ASTM D5185m	>10	2	6	0
	Titanium	ppm	ASTM D5185m		6	4 51	<1
	Silver	ppm	ASTM D5185m		0	0	0
	Aluminum	ppm	ASTM D5185m	>25	7 7	849	<1
	Lead	ppm	ASTM D5185m	>25	0	<1	0
	Copper	ppm	ASTM D5185m	>50	3	8	<1
	Tin	ppm	ASTM D5185m	>10	0	0	0
	Vanadium	ppm	ASTM D5185m		<1	3	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE		NONE	NONE
	Yellow Metal Silicon	scalar ppm	*Visual ASTM D5185m	NONE >75	NONE 309 10	NONE	NONE
	Yellow Metal Silicon Potassium	scalar ppm ppm	*Visual ASTM D5185m ASTM D5185m	NONE >75 >20	NONE	NONE 2144 56 NEG	NONE 1 2
	Yellow Metal Silicon Potassium Water Silt	scalar ppm ppm	*Visual ASTM D5185m ASTM D5185m WC Method	NONE >75 >20 >0.2	NONE 309 10 NEG NONE	NONE 2144 56 NEG NONE	NONE 1 2 NEG
	Yellow Metal Silicon Potassium Water Silt	scalar ppm ppm scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual	NONE >75 >20 >0.2 NONE	NONE 309 10 NEG NONE NONE	NONE 2144 56 NEG NONE NONE	NONE 1 2 NEG NONE
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt	scalar ppm ppm scalar scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual	NONE >75 >20 >0.2 NONE NONE	NONE 309 10 NEG NONE NONE NONE	NONE 2144 56 NEG NONE NONE	NONE 1 2 NEG NONE NONE
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance	scalar ppm ppm scalar scalar scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual	NONE >75 >20 >0.2 NONE NONE NONE	NONE 309 10 NEG NONE NONE NONE NOBMI	NONE 2144 56 NEG NONE NONE NONE	NONE 1 2 NEG NONE NONE NONE NONE
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor	scalar ppm ppm scalar scalar scalar scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual	NONE >75 >20 >0.2 NONE NONE NORML	NONE 309 10 NEG NONE NONE NONE NORE NORMI	NONE 2144 56 NEG NONE NONE NONE NONE NORML	NONE 1 2 NEG NONE NONE NONE NONE NORML
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	scalar ppm ppm scalar scalar scalar scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	NONE >75 >20 >0.2 NONE NONE NONE NORML NORML	NONE 309 10 NEG NONE NONE NONE NONE NORML NORML	NONE 2144 56 NEG NONE NONE NONE NORML NORML	NONE 1 2 NEG NONE NONE NONE NORML NORML NEG
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	scalar ppm ppm scalar scalar scalar scalar scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	NONE >75 >20 >0.2 NONE NORML NORML >0.2	NONE 309 10 NEG NONE NONE NONE NORML NORML NEG	NONE 2144 56 NEG NONE NONE NONE NONE NORML NORML NEG	NONE 1 2 NEG NONE NONE NONE NORML NORML NEG
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	scalar ppm ppm scalar scalar scalar scalar scalar scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NORML NORML >0.2	NONE 309 10 NEG NONE NONE NORML NORML NEG 11	NONE 2144 56 NEG NONE NONE NONE NORML NORML NEG 141	NONE 1 2 NEG NONE NONE NONE NORML NORML NEG 4
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	scalar ppm ppm scalar scalar scalar scalar scalar scalar ppm	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NONE NORML >0.2	NONE 309 10 NEG NONE NONE NORE NORML NEG 11 24	NONE 2144 56 NEG NONE NONE NORE NORML NEG 141	NONE 1 2 NEG NONE NONE NONE NORML NORML NEG 4
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	scalar ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NORME NORML >0.2	NONE 309 10 NEG NONE NONE NORML NORML NEG 11 24 0	NONE 2144 56 NEG NONE NONE NORML NORML NEG 141 22 <1	NONE 1 2 NEG NONE NONE NONE NORML NORML NEG 4
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	scalar ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	*Visual ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NORML >0.2	NONE 309 10 NEG NONE NONE NORML NEG 11 24 0 <1	NONE 2144 56 NEG NONE NONE NONE NORML NORML NEG 141 22 <1 1	NONE 1 2 NEG NONE NONE NONE NORML NORML NEG 4
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	scalar ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm	*Visual ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NORML NORML >0.2	NONE 309 10 NEG NONE NONE NORML NORML NEG 11 24 0 <1 14	NONE 2144 56 NEG NONE NONE NORML NORML NEG 141 222 <1 1 27	NONE 1 2 NEG NONE NONE NONE NORML NORML NEG 4
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Barium Molybdenum Manganese Magnesium	scalar ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NORML NORML >0.2	NONE 309 10 NEG NONE NONE NORML NEG 11 24 0 <1 14 9	NONE 2144 56 NEG NONE NONE NORML NCRML NEG 141 22 <1 1 22 <1 1 27 162	NONE 1 2 NEG NONE NONE NONE NORML NORML NEG 4 4 4 3
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Boron Barium Molybdenum Manganese Magnesium	scalar ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	*Visual ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NORML >0.2	NONE 309 10 NEG NONE NONE NORML NEG 11 24 0 <11 14 9 54	NONE 2144 56 NEG NONE NONE NORML NORML NEG 141 22 <1 1 27 162 245	NONE 1 2 NEG NONE NONE NONE NORML NORML NEG 4 4 3 9
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Sand/Dirt Appearance Odor Emulsified Water Sodium Barium Barium Malybdenum Manganese Magnesium Calcium	scalar ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	*Visual ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NORML >0.2	NONE 309 10 NEG NONE NONE NORML NORML NEG 11 24 0 <11 14 9 54 370	NONE 2144 56 NEG NONE NONE NONE NORML NORML 22 <11 22 <1 1 22 <1 1 22 <1 1 22 <1 1 22 <1 1 22 <1 245 289	NONE 1 2 NEG NONE NONE NONE NORML NORML NEG 4 4 <p< th=""></p<>
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Odor Emulsified Water Barium Barium Malybdenum Manganese Magnesium Calcium Phosphorus	scalar ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	*Visual ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NORML NORML >0.2	NONE 309 10 NEG NONE NONE NORML NEG 11 24 0 <11 14 9 54 370 12	NONE 2144 56 NEG NONE NONE NORML NEG 141 22 <1 1 27 162 245 289 5	NONE 1 2 NEG NONE NONE NONE NORML NORML NEG 4 <1 0 0 0 0 3 9 2437 12
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Boron Barium Manganese Magnesium Calcium Phosphorus Zinc Sulfur	scalar ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm ppm	*Visual ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NORME NORML >0.2	NONE 309 10 NEG NONE NONE NORML NEG 11 24 0 <11 14 9 54 370 12 21510	NONE 2144 56 NEG NONE NONE NORML NCRML NEG 141 22 <1 1 27 162 245 289 5 18353	NONE 1 2 NEG NONE NONE NONE NORML NORML NEG 4 < 4 2437 </th

Submitted By: Mike Young - CHARLOTTE SHOP



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