

Machine Id HITACHI 250LC 1FFDC270VJF440228 Left Final Drive

GEAR OIL SAE 80W90 (2 GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		JR0215699	JR0198111	JR0177987
	Sample Date		Client Info		20 May 2024	25 Jan 2024	25 Aug 2023
	Machine Age	hrs	Client Info		6999	6584	6053
	Oil Age	hrs	Client Info		6468	531	580
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		Not Changd	Not Changd	Changed
	Filter Changed		Client Info		N/A	Not Changd	N/A
	Sample Status				NORMAL	ABNORMAL	ABNORMAL
WEAR	PQ		ASTM D8184		15	282	473
All component wear rates are normal.	Iron	ppm	ASTM D5185m	>500	2	▲ 592	▲ 1114
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>10	0	6	9
	Nickel	ppm	ASTM D5185m	>10	0	2	3
	Titanium	ppm	ASTM D5185m		0	6	2
	Silver	ppm	ASTM D5185m		0	0	0
	Aluminum	ppm	ASTM D5185m	>25	0	7 0	47
	Lead	ppm	ASTM D5185m	>25	0	<1	0
	Copper	ppm	ASTM D5185m	>50	0	<1	2
	Tin	ppm	ASTM D5185m	>10	0	<1	0
	Vanadium	ppm	ASTM D5185m		0	<1	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	White Metal Yellow Metal	scalar scalar	*Visual *Visual	NONE NONE	NONE NONE	NONE NONE	NONE
CONTAMINATION				NONE			
	Yellow Metal	scalar	*Visual	NONE >75	NONE	NONE	NONE
CONTAMINATION There is no indication of any contamination in the oil.	Yellow Metal Silicon	scalar ppm	*Visual ASTM D5185m	NONE >75 >20	NONE 4	NONE	NONE
	Yellow Metal Silicon Potassium	scalar ppm	*Visual ASTM D5185m ASTM D5185m	NONE >75 >20	NONE 4 0	NONE 168 10	NONE 154 5
	Yellow Metal Silicon Potassium Water	scalar ppm ppm	*Visual ASTM D5185m ASTM D5185m WC Method	NONE >75 >20 >0.2	NONE 4 0 NEG	NONE 168 10 NEG	NONE 154 5 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 4 0 NEG NONE	NONE 168 10 NEG NONE	NONE 154 5 NEG NONE
	Yellow Metal Silicon Potassium Water Silt Debris	scalar ppm ppm scalar scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual	NONE >75 >20 >0.2 NONE NONE	NONE 4 0 NEG NONE NONE	NONE 168 10 NEG NONE NONE	NONE 154 5 NEG NONE NONE
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt	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 4 0 NEG NONE NONE NONE	NONE 168 10 NEG NONE NONE NONE	NONE 154 5 NEG NONE NONE NONE
	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance	scalar ppm ppm scalar scalar scalar scalar scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual	NONE >75 >20 >0.2 NONE NONE NORE NORML	NONE 4 0 NEG NONE NONE NONE NORML	NONE 168 10 NEG NONE NONE NONE NORML	NONE 154 5 NEG NONE NONE NONE NORML
There is no indication of any contamination in the oil.	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor	scalar ppm ppm scalar scalar scalar scalar scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	NONE >75 >20 >0.2 NONE NONE NORML >0.2	NONE 4 0 NEG NONE NONE NONE NORML NORML	NONE 168 10 NEG NONE NONE NONE NONE NORML NORML	NONE 154 5 NEG NONE NONE NONE NORML NORML
There is no indication of any contamination in the oil.	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 NONE NONE NORML >0.2	NONE 4 0 NEG NONE NONE NORE NORML NEG	NONE 168 10 NEG NONE NONE NONE NORML NORML NEG	NONE 154 5 NEG NONE NONE NONE NORML NORML NEG
There is no indication of any contamination in the oil.	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	scalar ppm scalar 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 NORME NORML >0.2 >170 400	NONE 4 0 NEG NONE NONE NORML NORML NEG 0	NONE 168 10 NEG NONE NONE NONE NORML NORML NEG 5	NONE 154 5 NEG NONE NONE NORML NORML NEG 3
There is no indication of any contamination in the oil.	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	scalar ppm scalar scalar scalar scalar scalar scalar scalar ppm	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	NONE >75 >20 >0.2 NONE NORME NORML >0.2 >170 400 200	NONE 4 0 NEG NONE NONE NORML NORML NEG 0	NONE 168 10 NEG NONE NONE NORML NORML NEG 5 8	NONE 154 5 NEG NONE NONE NONE NORML NORML NEG 3 7
There is no indication of any contamination in the oil.	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 >170 400 200	NONE 4 0 NEG NONE NONE NORML NORML NEG 0 <1 0	NONE 168 10 NEG NONE NONE NORML NORML NORML S5 8 <1	NONE 154 5 NEG NONE NONE NONE NORML NORML NEG 3 7 0
There is no indication of any contamination in the oil.	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	scalar ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm	*Visual ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NORML NORML >0.2 >170 400 200 12	NONE 4 0 NEG NONE NONE NONE NORML NORML NEG 0 <1 0 0 0	NONE 168 10 NEG NONE NONE NONE NORML NORML NEG 5 8 <10 0 10 0 10 0 10 0 10 0 10 0 10 0 1	NONE 154 5 NEG NONE NONE NORML NORML NEG 3 7 0 <1
There is no indication of any contamination in the oil.	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	scalar ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NORME NORML >0.2 >170 400 200 12	NONE 4 0 NEG NONE NONE NORML NORML NEG 0 <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NONE 168 10 NEG NONE NONE NORML NORML NEG 5 8 <10 0 6	NONE 154 5 NEG NONE NONE NONE NORML NORML NEG 3 7 0 <11 8
There is no indication of any contamination in the oil.	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron 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 NONE NORML >0.2 >170 400 200 12 12	NONE 4 0 NEG NONE NONE NONE NORML NORML NEG 0 <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NONE 168 10 NEG NONE NONE NORML NORML S5 8 <10 0 6 12	NONE 154 5 NEG NONE NONE NONE NORML NORML NEG 3 7 0 <11 8 5
There is no indication of any contamination in the oil.	Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	scalar ppm ppm scalar scalar scalar scalar scalar 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 >20 >0.2 NONE NONE NORML NORML >0.2 >170 400 200 12 150 1650	NONE 4 0 NEG NONE NONE NORML NORML NEG 0 <1 0 0 0 0 3	NONE 168 10 NEG NONE NONE NORML NORML NORML S S 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NONE 154 5 NEG NONE NONE NONE NORML NORML NEG 3 7 0 <11 8 5 8

Sulfur

Visc @ 40°C

ASTM D445 143 140 Submitted By: Mike Young - CHARLOTTE SHOP

21480

141

ASTM D5185m 22500

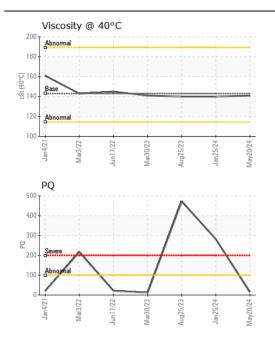
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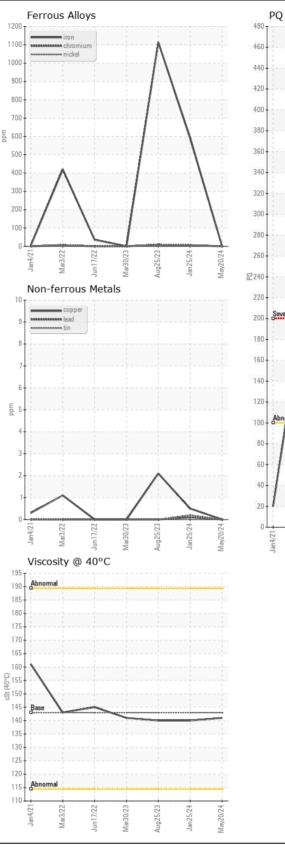
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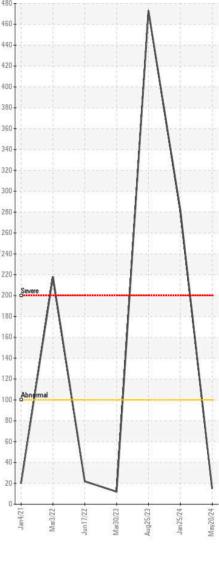
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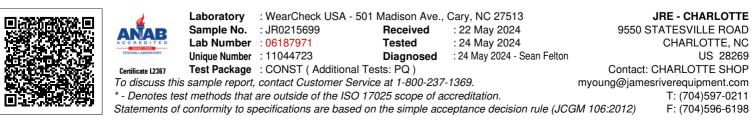
140

21991









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