

Area MELT SHOP - HYDRAULIC MELT SHOP EAF INLINE HEATER Component

Component Hydraulic System

FIRE-RESISTANT FLUID ISO 46 (5 GAL)

DIAGNOSIS

A Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

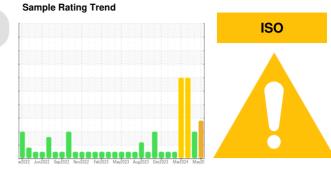
Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

The pH level of this fluid is within the acceptable limits at 9.0. The condition of the oil is acceptable for the time in service.

Sample Number Client Info RP0042065 RP0042719 RP0042698 Sample Date I Client Info 0 0 0 0 Machine Age hrs Client Info 0 0 0 0 Oil Age hrs Client Info N/A N/A N/A N/A Sample Status Imit Date Client Info N/A N/A N/A N/A Sample Status Imit Date Client Info N/A ABNORMAL ABNORMAL SEVERE WEAR METALS method Imit/base current history1 history2 Iron ppm ASTM D5185m >20 0 1 21 Nickel ppm ASTM D5185m >20 0 0 0 Silver ppm ASTM D5185m >20 0 11 11 Lead ppm ASTM D5185m >20 0 11 11 Cadmium ppm ASTM D5185m 5							
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Machine Age hrs Client Info 0 0 0 Dil Age hrs Client Info 0 0 0 Sample Status Client Info N/A N/A ABNORMAL ABNORMAL SEVERE WEAR METALS method limit/base current history1 history2 fron ppm ASTM D5185n >20 0 1 <1	Sample Number		Client Info		RP0042065	RP0042719	RP0042698
Dil Age hrs Client Info 0 0 0 Dil Changed Client Info N/A N/A N/A N/A Sample Status Imathe and the analysis of the	Sample Date		Client Info		09 May 2024	28 Mar 2024	12 Mar 2024
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Sample Status method limit/base current history1 history2 Iron ppm ASTM D5185m >20 0 ▲ 37 ▲ 72 Chromium ppm ASTM D5185m >20 0 1 <1	Oil Age	hrs	Client Info		0	0	0
WEAR METALS method limit/base current history1 history2 iron ppm ASTM D5185m >20 0 ▲ 37 ▲ 72 Chromium ppm ASTM D5185m >20 0 1 <1	Oil Changed		Client Info			N/A	N/A
Iron ppm ASTM D5185m >20 0 ▲ 37 ▲ 72 Chromium ppm ASTM D5185m >20 0 1 <1	Sample Status				ABNORMAL	ABNORMAL	SEVERE
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Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >20 0 11 11 Lead ppm ASTM D5185m >20 0 0 0 Copper ppm ASTM D5185m >20 0 1 <1	Nickel	ppm	ASTM D5185m	>20	0	1	2
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Lead ppm ASTM D5185m >20 0 0 0 Copper ppm ASTM D5185m >20 0 <1	Silver	ppm	ASTM D5185m		0	0	0
Copper ppm ASTM D5185m >20 0 <1 <1 Tin ppm ASTM D5185m >20 0 1 <1	Aluminum	ppm	ASTM D5185m	>20	0	11	11
Tin ppm ASTM D5185m >20 0 1 <1 Vanadium ppm ASTM D5185m 0 1 1 Cadmium ppm ASTM D5185m 0 0 <1 4 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5 0 14 3 Barium ppm ASTM D5185m 5 0 14 3 Barium ppm ASTM D5185m 5 0 0 0 Magnese ppm ASTM D5185m 5 0 <1 1 2 Calcium ppm ASTM D5185m 50 0 11 15 Phosphorus ppm ASTM D5185m 50 0 11 16 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 0 4 4 Sodium ppm ASTM D5185m >20 <1 10	Lead	ppm	ASTM D5185m	>20	0	0	0
Tin ppm ASTM D5185m >20 0 1 <1 Vanadium ppm ASTM D5185m 0 1 1 1 Cadmium ppm ASTM D5185m 0 <1	Copper	ppm	ASTM D5185m	>20	0	<1	<1
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Boron ppm ASTM D5185m 5 0 14 3 Barium ppm ASTM D5185m 5 0 0 0 Molybdenum ppm ASTM D5185m 5 0 <1	Cadmium		ASTM D5185m		0	<1	4
Barium ppm ASTM D5185m 5 0 0 0 Molybdenum ppm ASTM D5185m 5 0 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 5 0 <1 0 Manganese ppm ASTM D5185m 5 <1	Boron	ppm	ASTM D5185m	5	0	14	3
ASTM D5185m 0 <1 <1 Magnesium ppm ASTM D5185m 5 <1	Barium	ppm	ASTM D5185m	5	0	0	0
Magnesium ppm ASTM D5185m 5 <1 1 2 Calcium ppm ASTM D5185m 50 0 11 15 Phosphorus ppm ASTM D5185m 175 0 7 7 Zinc ppm ASTM D5185m 175 0 7 7 Zinc ppm ASTM D5185m 62 10 11 104 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 0 4 4 Sodium ppm ASTM D5185m >15 0 53 22 Potassium ppm ASTM D5185m >20 <1	Molybdenum	ppm	ASTM D5185m	5	0	<1	0
Calcium ppm ASTM D5185m 50 0 11 15 Phosphorus ppm ASTM D5185m 175 0 7 7 Zinc ppm ASTM D5185m 175 0 7 7 Zinc ppm ASTM D5185m 62 10 11 104 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 0 4 4 Sodium ppm ASTM D5185m >15 0 4 4 Sodium ppm ASTM D5185m >20 <1 10 9 Water % ASTM D6304 >55 38.0 30.9 45.5 opm ASTM D6304 >55000 380000 309000 455000 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 10962 2088	Manganese	ppm	ASTM D5185m		0	<1	<1
Phosphorus ppm ASTM D5185m 175 0 7 7 Zinc ppm ASTM D5185m 62 10 11 104 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 0 4 4 Sodium ppm ASTM D5185m >15 0 4 4 Sodium ppm ASTM D5185m >20 <1 10 9 Water % ASTM D6304 >55 38.0 30.9 45.5 opm Water pm ASTM D6304 >55000 380000 309000 455000 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 10962 2088 3304 Particles >6µm ASTM D7647 >1300 5971 1137 166 Particles >14µm ASTM D7647 >40 342	Magnesium	ppm	ASTM D5185m	5	<1	1	2
Zinc ppm ASTM D5185m 62 10 11 104 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 0 4 4 Sodium ppm ASTM D5185m >15 0 4 4 Sodium ppm ASTM D5185m >20 <1 10 9 Potassium ppm ASTM D5185m >20 <1 10 9 Water % ASTM D6304 >55 38.0 30.9 45.5 oppm Water ppm ASTM D6304 >55000 380000 309000 455000 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 10962 2088 3304 Particles >6µm ASTM D7647 >160 1016 194 28 Particles >21µm ASTM D7647 >10 533	Calcium	ppm	ASTM D5185m	50	0	11	15
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>15044SodiumppmASTM D5185m>05322PotassiumppmASTM D5185m>20<1	Phosphorus	ppm	ASTM D5185m	175	0	7	7
Silicon ppm ASTM D5185m >15 0 4 4 Sodium ppm ASTM D5185m 0 53 22 Potassium ppm ASTM D5185m >20 <1 10 9 Water % ASTM D6304 >55 38.0 30.9 45.5 opm Water ppm ASTM D6304 >55 38.0 30.9 45.5 opm Water ppm ASTM D6304 >55000 380000 309000 455000 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 10962 2088 3304 Particles >6µm ASTM D7647 >1300 5971 1137 166 Particles >14µm ASTM D7647 >160 1016 194 28 Particles >21µm ASTM D7647 >10 53 10 1 Particles >38µm ASTM D7647 >33 5 1 0	Zinc	ppm	ASTM D5185m	62	10	11	104
Sodium ppm ASTM D5185m 0 53 22 Potassium ppm ASTM D5185m >20 <1	CONTAMINANTS	S	method	limit/base	current	history1	history2
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oppm Water ppm ASTM D6304 >55000 380000 309000 455000 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 10962 2088 3304 Particles >6µm ASTM D7647 >1300 5971 1137 166 Particles >14µm ASTM D7647 >160 1016 194 28 Particles >21µm ASTM D7647 >40 342 65 10 Particles >38µm ASTM D7647 >10 533 10 1 Particles >71µm ASTM D7647 >3 5 1 0	Potassium	ppm	ASTM D5185m	>20	<1	10	9
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 10962 2088 3304 Particles >6µm ASTM D7647 >1300 5971 1137 166 Particles >14µm ASTM D7647 >160 1016 194 28 Particles >21µm ASTM D7647 >40 342 65 10 Particles >38µm ASTM D7647 >10 53 10 1 Particles >71µm ASTM D7647 >3 5 1 0	Water	%	ASTM D6304	>55	38.0	30.9	45.5
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Particles >38μm ASTM D7647 >10 4 53 10 1 Particles >71μm ASTM D7647 >3 A 5 1 0	Particles >21µm		ASTM D7647	>40	A 342	65	10
Particles >71μm ASTM D7647 >3 Δ 5 1 0	Particles >38µm						
	Particles >71µm		ASTM D7647	>3			0
	Oil Cleanliness					18/17/15	19/15/12





OIL ANALYSIS REPORT

scalar

scalar

scalar

scalar

VISUAL

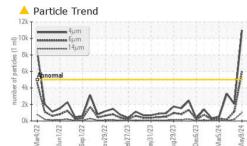
White Metal

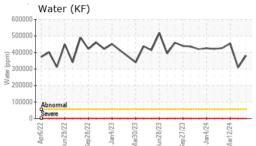
Yellow Metal

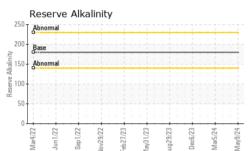
Precipitate

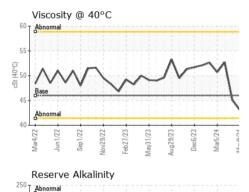
Silt

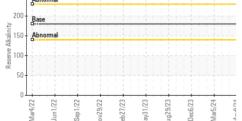
Debris

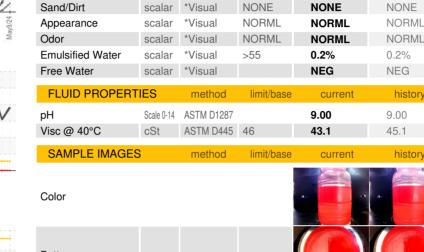












method

*Visual

*Visual

*Visua

*Visual

scalar *Visual

limit/base

NONE

NONE

NONE

NONE

NONE

current

NONE

NONE

NONE

NONE

NONE

简望

history1

NONE

NONE

NONE

NONE

NONE

history

histor

history2

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

histor

0.2%

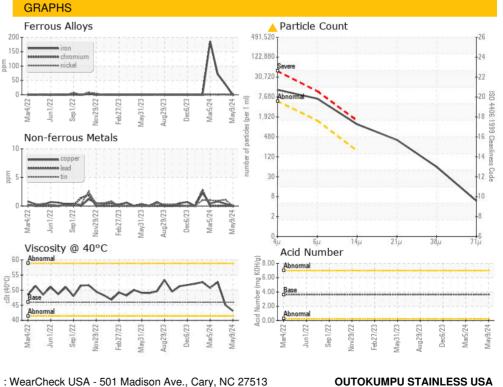
NEG

11.0

52.7

histo

Bottom



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : RP0042065 Received : 10 May 2024 Lab Number Tested : 06175582 : 16 May 2024 Unique Number : 11021635 Diagnosed : 16 May 2024 - Jonathan Hester Test Package : IND 2 (Additional Tests: pH, ReserveAlk) Certificate 12367 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)

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Report Id: OUTCALAL [WUSCAR] 06175582 (Generated: 05/16/2024 18:01:13) Rev: 1

Submitted By: DALE ROBINSON

Page 2 of 2