

OIL ANALYSIS REPORT

Area HOTLINE/120 MILL Machine Id 120 MILL MTR STAND 1 SOUTH BRG 1415-033-0121 Component

South Bearing

Fluid ROYAL PURPLE SYNFILM GT 68 (30 GAL)

DIAGNOSIS

Recommendation

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

A Wear

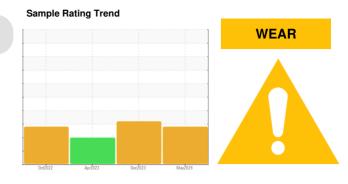
The lead level is abnormal. All other component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type. The AN level is acceptable for this fluid.



Sample Number Client Info KFS0004812 KFS0002510 KFS000400 Sample Date info 10 May 2024 20 Dec 2023 17 Apr 2023 Machine Age hrs Client Info 0 0 0 Oil Age hrs Client Info 0 0 0 Oil Age hrs Client Info 0 0 0 0 Oil Changed Client Info N/A N/A N/A ABNORMAL Sample Status Immethod Imit/base current history1 Mistory2 Water WC Method >2 NEG NEG NEG VEAR METALS method Imit/base current history1 history2 Iron ppm ASTM D5185m >20 <1 <1 0 0 Nickel ppm ASTM D5185m >20 <1 2 <1 2 <1 Lead ppm ASTM D5185m >20 <1 2 <1 <td< th=""><th>SAMPLE INFORM</th><th>ATION</th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></td<>	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Date IClient Info IO May 2024 20 Dec 2023 17 Apr 2023 Machine Age hrs Client Info 0 0 0 Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Image Client Info N/A N/A N/A ABNORMAL CONTAMINATION method limit/base current history1 history2 WEAR METALS method limit/base current history1 0 Vickel ppm ASTM D5185m >20 <1 0 0 Nickel ppm ASTM D5185m >20 <1 0 0 Olimium ppm ASTM D5185m >20 <1 2 <1 Aged ppm ASTM D5185m >20 <1 2 <1 Iron ppm ASTM D5185m >20 <1 2 <1 2	Sample Number		Client Info		KFS0004812		KFS0003400
Machine Age hrs Client Info 0 0 0 Oil Age hrs Client Info N/A N/A N/A Sample Status Image Client Info N/A ABNORMAL ABNORMAL ABNORMAL CONTAMINATION method Imit/base current history1 history2 Water WC Method >2 NEG NEG NEG WEAR METALS method Imit/base current history1 history2 Iron ppm ASTM DS185n >20 <1	•						
Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Client Info N/A ABNORMAL ABNORMAL ABNORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM 05185m >20 0 <1	-	hrs			-		
Oli Changed Client Info N/A N/A N/A ABNORMAL ABNORMAL ABNORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >2 NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1 <1 2 Chromium ppm ASTM D5185m >20 0 0 0 Nickel ppm ASTM D5185m >20 <1 2 <1 Lead ppm ASTM D5185m >20 <1 2 <1 Vanadium ppm ASTM D5185m >20 <37 31 120 Copper ppm ASTM D5185m >20 6 3 14 Vanadium ppm ASTM D5185m 0 0 0 0 Astim D5185m 0 0 <t< td=""><td>-</td><td></td><td></td><td></td><th></th><td></td><td></td></t<>	-						
Sample Status method Imit/base current history1 ABNORMAL ABNORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1	•						
CONTAMINATION method limit/base current history1 history2 Water WC Method >2 NEG NEG NEG WeAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 1 -1 2 Chromium ppm ASTM D5185m >20 1 0 0 Nickel ppm ASTM D5185m >20 -1 2 -1 Silver ppm ASTM D5185m >20 -1 2 -1 Copper ppm ASTM D5185m >20 -2 3 13 120 Copper ppm ASTM D5185m >20 6 3 14 Vanadium ppm ASTM D5185m >20 6 3 14 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0	•						
Water WC Method >2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 1 1 2 Chromium ppm ASTM D5185m >20 0 <1	·		mothod	limit/baco	-		-
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1		N					
Iron ppm ASTM D5185m >20 <1 <1 2 Nickel ppm ASTM D5185m >20 0 <1					-	-	
Chromium ppm ASTM D5185m >20 0 <1 0 Nickel ppm ASTM D5185m >20 1 0 0 Titanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m >20 <1							
Nickel ppm ASTM D5185m >20 1 0 0 Titanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m >20 <1	-						
Titanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m S20 <1		ppm			-		
Silver ppm ASTM D5185m >20 <1 2 <1 Lead ppm ASTM D5185m >20 37 31 120 Copper ppm ASTM D5185m >20 2 3 13 Tin ppm ASTM D5185m >20 2 3 13 Vanadium ppm ASTM D5185m >20 6 3 14 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 11 12 85 Calcium ppm ASTM D5185m 0 0 0 5 Sulfur ppm ASTM D5185m 0 0 1 1				>20			
Aluminum ppm ASTM D5185m >20 <1 2 <1 Lead ppm ASTM D5185m >20 A 37 A 31 A 120 Copper ppm ASTM D5185m >20 2 3 13 Tin ppm ASTM D5185m >20 6 3 14 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ASTM D5185m 0 0 0 0 0 0 ASTM D5185m 0 0 0 0 0 0 Margaesium ppm ASTM D5185m 0 0 0 0 11 0 12 85 Calcium ppm ASTM D5185m 90 111 0 12 85 Calcium ppm ASTM D5185m 90 0 0 55 14 1 1 122289		ppm			-		
Lead ppm ASTM D5185m >20 A 37 A 31 A 120 Copper ppm ASTM D5185m >20 2 3 13 Tin ppm ASTM D5185m >20 6 3 14 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 0 0 0 Magnese ppm ASTM D5185m 0 0 0 12 85 Calcium ppm ASTM D5185m 90 11 0 12 22 1 2 Phosphorus ppm ASTM D5185m 90 0 0 5 5 1 2 1 22 2 4 2 2 4 2 2 1	Silver				-		
Copper ppm ASTM D5185m >20 2 3 13 Tin ppm ASTM D5185m >20 6 3 14 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Magnasese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 90 11 12 85 Calcium ppm ASTM D5185m 90 0 0 5 Sulfur ppm ASTM D5185m 50 92 4 Zinc ppm ASTM D5185m 50 92 4 Sulfur ppm ASTM D5185m 50 92 4 Stilicon <t< td=""><td>Aluminum</td><td>ppm</td><td>ASTM D5185m</td><td>>20</td><th><1</th><td>_</td><td><1</td></t<>	Aluminum	ppm	ASTM D5185m	>20	<1	_	<1
Tin ppm ASTM D5185m >20 6 3 14 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 <1 12 85 Calcium ppm ASTM D5185m 90 11 12 85 24 Calcium ppm ASTM D5185m 50 92 4 22 Phosphorus ppm ASTM D5185m 50 92 4 22 28 Sulfur ppm ASTM D5185m 20 2 <1 0 15 <1 1	Lead	ppm	ASTM D5185m	>20	<mark>/</mark> 37	A 31	<u> </u>
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m <	Copper	ppm	ASTM D5185m	>20	2	3	13
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 11 0 1 Magnesium ppm ASTM D5185m 90 11 12 85 Calcium ppm ASTM D5185m 90 11 12 85 Calcium ppm ASTM D5185m 90 11 12 85 Calcium ppm ASTM D5185m 90 11 12 24 Zinc ppm ASTM D5185m 50 92 4 Zinc ppm ASTM D5185m 0 0 1 Sodium ppm ASTM D5185m 20 2 1 0 Sodium	Tin	ppm	ASTM D5185m	>20	6	3	14
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Maganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 90 11 12 85 Calcium ppm ASTM D5185m 90 11 12 85 Calcium ppm ASTM D5185m 90 0 0 0 5 Sulfur ppm ASTM D5185m 50 92 4 22289 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 <1	Vanadium	ppm	ASTM D5185m		0	0	0
Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m <1	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m <1 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Magnese ppm ASTM D5185m 90 11 12 85 Calcium ppm ASTM D5185m 90 11 12 85 Calcium ppm ASTM D5185m 90 92 4 Zinc ppm ASTM D5185m 0 0 5 Sulfur ppm ASTM D5185m 0 0 5 Sulfur ppm ASTM D5185m 0 0 5 Sulfur ppm ASTM D5185m >15 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 90 11 12 85 Calcium ppm ASTM D5185m 90 11 12 85 Calcium ppm ASTM D5185m 90 11 12 85 Calcium ppm ASTM D5185m 90 92 4 Zinc ppm ASTM D5185m 50 92 4 Zinc ppm ASTM D5185m 0 0 5 Sulfur ppm ASTM D5185m 0 0 1 Sodium ppm ASTM D5185m >15 <1	Boron	ppm	ASTM D5185m		0	0	0
Maganese ppm ASTM D5185m <1 0 <1 Magnesium ppm ASTM D5185m 90 11 12 85 Calcium ppm ASTM D5185m 90 11 12 85 Calcium ppm ASTM D5185m 2 <1	Barium	ppm	ASTM D5185m		<1	0	0
Magnesium ppm ASTM D5185m 90 11 12 85 Calcium ppm ASTM D5185m 2 <1	Molybdenum	ppm	ASTM D5185m		0	0	0
Calcium ppm ASTM D5185m 2 <1 2 Phosphorus ppm ASTM D5185m 50 92 4 Zinc ppm ASTM D5185m 0 0 55 Sulfur ppm ASTM D5185m 0 0 55 Sulfur ppm ASTM D5185m 6351 6131 22289 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 <1 <1 0 Sodium ppm ASTM D5185m >20 2 <1 0 Potassium ppm ASTM D5185m >20 2 <1 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 100027 60097 38276 Particles >6µm ASTM D7647 >2500 9288 8043 4577 Particles >1µm ASTM D7647 >160 97 60 95 Particles >21µm	Manganese	ppm	ASTM D5185m		<1	0	<1
Phosphorus ppm ASTM D5185m 50 92 4 Zinc ppm ASTM D5185m 0 0 5 Sulfur ppm ASTM D5185m 6351 6131 22289 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 <1 <1 0 Sodium ppm ASTM D5185m >15 <1	Magnesium	ppm	ASTM D5185m	90	1 1	12	85
Zinc ppm ASTM D5185m 0 0 5 Sulfur ppm ASTM D5185m 6351 6131 22289 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 <1	Calcium	ppm	ASTM D5185m		2	<1	2
Zinc ppm ASTM D5185m 0 0 5 Sulfur ppm ASTM D5185m 6351 6131 22289 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 <1	Phosphorus	ppm	ASTM D5185m		50	92	4
Sulfur ppm ASTM D5185m 6351 6131 22289 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 <1 <1 0 Sodium ppm ASTM D5185m >15 <1 <1 0 1 Potassium ppm ASTM D5185m >20 2 <1 0 1 Potassium ppm ASTM D5185m >20 2 <1 0 1 Potassium ppm ASTM D5185m >20 2 <1 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 100027 60097 38276 Particles >6µm ASTM D7647 >2500 9288 8043 4577 Particles >14µm ASTM D7647 >160 97 60 95 Particles >38µm ASTM D7647 30			ASTM D5185m		0	0	5
Silicon ppm ASTM D5185m >15 <1 <1 0 Sodium ppm ASTM D5185m >15 <1	Sulfur		ASTM D5185m		6351	6131	22289
Sodium ppm ASTM D5185m <1 0 1 Potassium ppm ASTM D5185m >20 2 <1	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 2 <1 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 100027 60097 38276 Particles >6µm ASTM D7647 >2500 9288 8043 4577 Particles >14µm ASTM D7647 >160 97 60 95 Particles >21µm ASTM D7647 >40 14 7 16 Particles >38µm ASTM D7647 >10 0 0 0 Particles >71µm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >20/18/14 24/20/14 23/20/13 22/19/14 FLUID DEGRADATION method limit/base current history1 history2	Silicon	ppm	ASTM D5185m	>15	<1	<1	0
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 100027 60097 38276 Particles >6µm ASTM D7647 >2500 9288 8043 4577 Particles >14µm ASTM D7647 >160 97 60 95 Particles >21µm ASTM D7647 >40 14 7 16 Particles >38µm ASTM D7647 >10 0 0 0 Particles >38µm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >20/18/14 24/20/14 23/20/13 22/19/14	Sodium	ppm	ASTM D5185m		<1	0	1
Particles >4μm ASTM D7647 >10000 100027 60097 38276 Particles >6μm ASTM D7647 >2500 9288 8043 4577 Particles >14μm ASTM D7647 >160 97 60 95 Particles >21μm ASTM D7647 >40 14 7 16 Particles >38μm ASTM D7647 >10 0 0 0 Particles >38μm ASTM D7647 >3 0 0 0 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >20/18/14 24/20/14 23/20/13 22/19/14	Potassium	ppm	ASTM D5185m	>20	2	<1	0
Particles >6µm ASTM D7647 >2500 ● 9288 ▲ 8043 ● 4577 Particles >14µm ASTM D7647 >160 97 60 95 Particles >21µm ASTM D7647 >40 14 7 16 Particles >38µm ASTM D7647 >10 0 0 0 Particles >38µm ASTM D7647 >3 0 0 0 Particles >71µm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >20/18/14 24/20/14 23/20/13 22/19/14 FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >160 97 60 95 Particles >21μm ASTM D7647 >40 14 7 16 Particles >21μm ASTM D7647 >40 14 7 16 Particles >38μm ASTM D7647 >10 0 0 0 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >20/18/14 24/20/14 23/20/13 22/19/14 FLUID DEGRADATION method limit/base current history1 history2							
Particles >21μm ASTM D7647 >40 14 7 16 Particles >38μm ASTM D7647 >10 0 0 0 Particles >38μm ASTM D7647 >30 0 0 0 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >20/18/14 24/20/14 23/20/13 22/19/14 FLUID DEGRADATION method limit/base current history1 history2	-		ASTM D7647	>2500	<mark>/</mark> 9288	<u> </u>	-
Particles >38μm ASTM D7647 >10 0 0 0 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >20/18/14 24/20/14 23/20/13 22/19/14 FLUID DEGRADATION method limit/base current history1 history2	Particles >14µm		ASTM D7647	>160	97		95
Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >20/18/14 24/20/14 23/20/13 22/19/14 FLUID DEGRADATION method limit/base current history1 history2	Particles >21µm		ASTM D7647	>40	14	7	16
Oil Cleanliness ISO 4406 (c) >20/18/14 24/20/14 23/20/13 22/19/14 FLUID DEGRADATION method limit/base current history1 history2	Particles >38µm		ASTM D7647	>10	0	0	0
FLUID DEGRADATION method limit/base current history1 history2	Particles >71µm		ASTM D7647	>3	0	0	0
	Oil Cleanliness		ISO 4406 (c)	>20/18/14	4 24/20/14	▲ 23/20/13	▲ 22/19/14
Acid Number (AN) mg KOH/g ASTM D8045 0.34 0.31 0.39	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045		0.34	0.31	0.39

Submitted By: COLD MILL - Josh Edwards Page 1 of 2



1

les (1

particles (1

20

0.4 0.35

(B/H0.30

B 0.25

0.20

0.1

-B 0.10

0.05

0.00

8

75

40°C)

÷3 65

55

Abnorma 60

Det 17

OIL ANALYSIS REPORT

scalar

cSt

method

*Visual

method

ASTM D445

method

limit/base

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

limit/base

limit/base

>2

68

current

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

curren

current

NEG

NEG

69.3

history1

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

history

history1

NEG

NEG

69.9

history2

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

history2

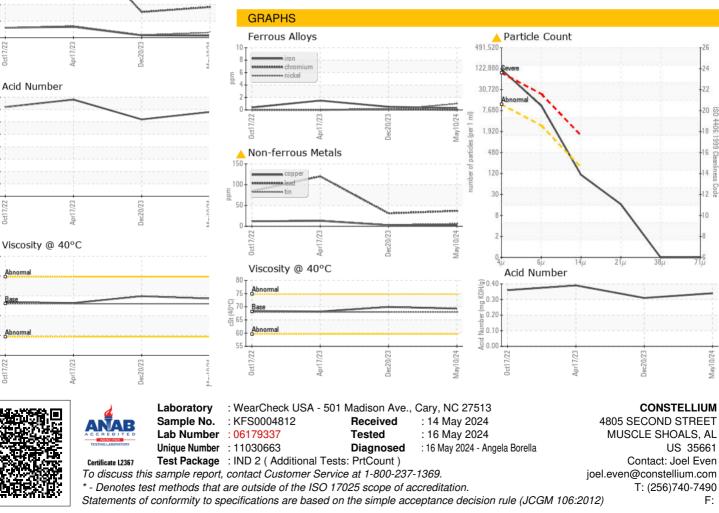
history2

NEG

NEG

68.2





Submitted By: COLD MILL - Josh Edwards

Page 2 of 2