

PROBLEM SUMMARY

Sample Rating Trend

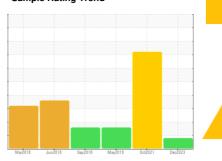
ISO

Machine Id

Mori Seiki Gate Insert Lathe # 534 - cc4035

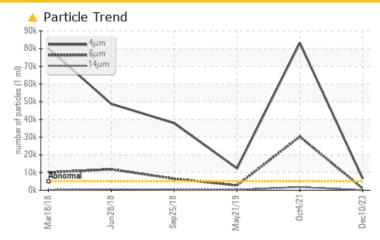
Hydraulic System

AW HYDRAULIC OIL ISO 32 (--- GAL)





COMPONENT CONDITION SUMMARY



RECOMMENDATION

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

DDOB!	EMATIC	TEST	RESULTS
FRUDL			RESULIS

Sample Status		ATTENTION	SEVERE	ABNORMAL
Particles >4μm	ASTM D7647 >500	0 6589	83263	<u>▲</u> 12367
Oil Cleanliness	ISO 4406 (c) >19/1	7/14 △ 20/17/12	2 4/22/18	<u>\$\rightarrow\$ 21/19/15</u>

Customer Id: HUSBOLED **Sample No.:** WC0887642 Lab Number: 02602267 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter			?	We recommend you service the filters on this component.
Alert			?	Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment.
Information Required			?	Please specify the brand, type, and viscosity of the oil on your next sample. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

HISTORICAL DIAGNOSIS



04 Oct 2021 Diag: Wes Davis

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. Particles >14 µm are severely high. Particles >21 µm are severely high. Particles >6µm are severely high. Particles >4µm are severely high. Particles >38µm are abnormally high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





21 May 2019 Diag: Wes Davis

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. Particles >4µm are abnormally high. Particles >6µm are abnormally high. Particles >14µm are notably high. Particles >21µm are notably high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





25 Sep 2018 Diag: Wes Davis

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. Particles >4μm are abnormally high. Particles >6μm are abnormally high. Particles >14μm are notably high. Particles >21μm are notably high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Sample Rating Trend

ISO ISO

Machine Id

Mori Seiki Gate Insert Lathe # 534 - cc4035

Component

Hydraulic System

AW HYDRAULIC OIL ISO 32 (--- GAL)

DIAGNOSIS

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

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

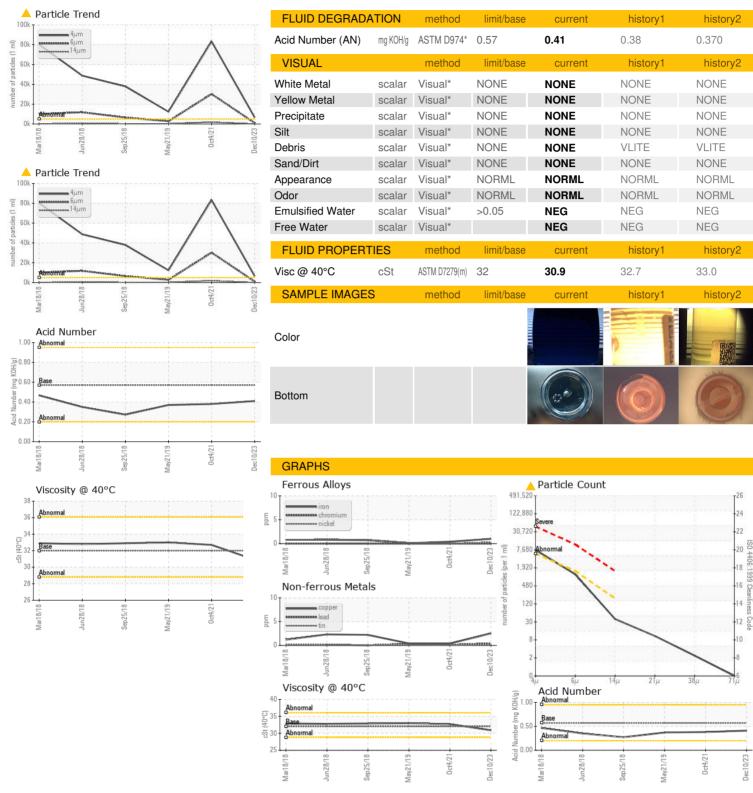
Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

		Mar2018	Jun2018 Sep2018	May2019 Oct2021	Dec2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0887642	WC0630882	WC0350699
Sample Date		Client Info		10 Dec 2023	04 Oct 2021	21 May 2019
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
Sample Status				ATTENTION	SEVERE	ABNORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	1	<1	<1
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	0	0	<1
Lead	ppm	ASTM D5185(m)	>20	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>20	2	<1	<1
Tin	ppm	ASTM D5185(m)	>20	0	<1	0
Antimony	ppm	ASTM D5185(m)		0	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current 1	history1	history2 <1
	ppm ppm					
Boron		ASTM D5185(m)	5	1	1	<1
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	5 5	1 <1	1 0	<1
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5	1 <1 0	1 0 0	<1 0 0
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5	1 <1 0	1 0 0	<1 0 0 0 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25	1 <1 0 0 <1	1 0 0 0	<1 0 0 <1 <1
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200	1 <1 0 0 <1 36	1 0 0 0 0 0 0 33	<1 0 0 <1 <1 <1 31
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200 300	1 <1 0 0 <1 36 318	1 0 0 0 0 0 0 33 352	<1 0 0 <1 <1 <1 31 307
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200 300 370	1 <1 0 0 0 <1 36 318 402	1 0 0 0 0 0 0 33 352 365	<1 0 0 <1 <1 <1 31 307 347
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200 300 370	1 <1 0 0 0 <1 36 318 402 2155	1 0 0 0 0 0 33 352 365 1736	<1 0 0 <1 <1 <1 31 307 347 866
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200 300 370 2500	1 <1 0 0 <1 36 318 402 2155 <1	1 0 0 0 0 0 33 352 365 1736	<1 0 0 <1 <1 <1 31 307 347 866
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200 300 370 2500	1 <1 0 0 0 <1 36 318 402 2155 <1 current	1 0 0 0 0 0 33 352 365 1736 <1	<1 0 0 <1 <1 31 307 347 866 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m)	5 5 5 25 200 300 370 2500	1	1 0 0 0 0 0 0 33 352 365 1736 <1 history1 0	<1 0 0 <1 <1 31 307 347 866 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200 300 370 2500	1	1 0 0 0 0 0 0 33 352 365 1736 <1 history1 0 0	<1 0 0 <1 <1 31 307 347 866 0 history2 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15 >20	1	1 0 0 0 0 0 0 0 33 352 365 1736 <1 history1 0 0 <1	<1 0 0 0 <1 <1 <1 31 307 347 866 0 history2 <1 <1 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) METHOD ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15 >20	1	1 0 0 0 0 0 0 0 33 352 365 1736 <1 history1 0 <1 history1	<1 0 0 0 <1 <1 <1 31 307 347 866 0 history2 <1 <1 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) METHOD ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000	1	1 0 0 0 0 0 0 0 33 352 365 1736 <1 history1 0 <1 history1	<1 0 0 0 <1 <1 <1 31 307 347 866 0 history2 <1 <1 <1 history2 1 2367
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160	1	1 0 0 0 0 0 0 0 33 352 365 1736 <1 history1 0 0 <1 history1	<1 0 0 0 <1 <1 <1 31 307 347 866 0 history2 <1 <1 <1 history2 ▲ 12367 ▲ 2732
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) MASTM D5185(m) MASTM D5185(m) METHOD ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160	1	1 0 0 0 0 0 0 33 352 365 1736 <1 history1 0 0 <1 history1	<1 0 0 0 <1 <1 <1 31 307 347 866 0 history2 <1 <1 <1 history2 ▲ 12367 ▲ 2732 ▲ 266
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) MASTM D5185(m) MASTM D5185(m) MASTM D5185(m) METHOD ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160 >40	1	1 0 0 0 0 0 0 0 33 352 365 1736 <1 history1 0 <1 history1	<1 0 0 0 <1 <1 <1 31 307 347 866 0 history2 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number **Unique Number** Test Package

: WC0887642 : 02602267

: 5695352

: IND 2

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 HUSKY INJECTION MOLDING SYSTEMS LTD Received

: 11 Dec 2023 Diagnosed : 12 Dec 2023 Diagnostician : Wes Davis

530 QUEEN STREET SOUTH BOLTON, ON

CA L7E 5S5 Contact: Robert Cameron

rcameron@husky.ca

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

Validity of results and interpretation are based on the sample and information as supplied.

T: (905)951-5000

F: (905)951-5167