

OIL ANALYSIS REPORT

Area VACUUM PUMP Machine Id B70073-Top BUSCH ROTARY VANE

Vacuum Pump

BUSCH R530S (--- LTR)

DIAGNOSIS

Recommendation

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

Wear

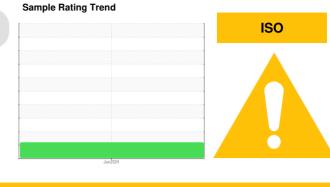
All component wear rates are normal.

Contamination

There is a high 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.



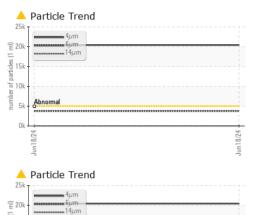
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0907908		
Sample Date		Client Info		18 Jun 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Not Changd		
Sample Status				ABNORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>.1	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<1		
Chromium	ppm	ASTM D5185m	>20	0		
Nickel	ppm	ASTM D5185m	>20	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>20	0		
Lead	ppm	ASTM D5185m	>20	0		
Copper	ppm	ASTM D5185m	>20	0		
Tin	ppm	ASTM D5185m	>20	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0		
Barium	ppm	ASTM D5185m		0		
Molybdenum	nnm	ASTM D5185m		0		
worybuenum	ppm	AO INI DO IODIII				
•	ppm	ASTM D5185m		<1		
Manganese				<1 <1		
Manganese Magnesium	ppm ppm	ASTM D5185m				
Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m		<1		
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 0		
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		<1 0 2		
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<1 0 2 4		
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<1 0 2 4 2567		
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 0 2 4 2567 current		
Maganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m		<1 0 2 4 2567 current 2	 history1	 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>15	<1 0 2 4 2567 <u>current</u> 2 2	 history1 	 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>15 >20	<1 0 2 4 2567 current 2 2 3	 history1 	 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>15 >20 limit/base >5000	<1 0 2 4 2567 current 2 2 3 current 4 2 2 2 2 3 2 2 3 0 0 0 0 0 0 0 0 0 0 0 0	 history1 history1	 history2 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300	<1 0 2 4 2567 current 2 2 2 3 current 2 2 3 current 3 20425 3 3792	 history1 history1	 history2 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160	<1 0 2 4 2567 current 2 2 3 current 4 2 3 2 3 2 2 3 2 2 3 2 2 2 3 2 2 2 2 2	 history1 history1 history1	 history2 history2 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40	<1 0 2 4 2567 current 2 2 2 3 current 2 3 2 2 3 3 20425 2 2 3 792 22 1	 history1 history1	 history2 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40 >10	<1 0 2 4 2567 current 2 2 2 3 2 3 2 2 3 2 2 3 2 2 2 3 3 2 2 2 2 3 3 2 2 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 3 2 2 3 2 3 2 2 3 2 2 3 2 2 3 2 3 2 3 2 2 3 2 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 3 2 2 3 3 2 2 3 3 2 3 3 2 2 3 3 2 3 2 2 3 2 3 3 2 2 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 2 3 3 2 3 2 3 3 2 3 2 3 3 2 3 3 2 2 3 3 2 3 3 2 3 2 3 3 2 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 3 2 3 3 3 3 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 2 3	 history1 history1 	 history2 history2 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40 >10 >3	<1 0 2 4 2567 current 2 2 2 3 current 2 3 2 2 3 3 20425 2 2 3 792 22 1	 history1 history1 	 history2 history2 history2
Maganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm Oil Cleanliness	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40 >10 >3 >3 >19/17/14	<1 0 2 4 2567 current 2 2 2 3 current ▲ 20425 ▲ 3792 22 1 0 0 0 ▲ 22/19/12	 history1 history1 	 history2 history2 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40 >10 >3	<1 0 2 4 2567 2257 22 3 3 Current 2 3 2 3 2 2 3 3 2 2 3 3 2 2 2 3 3 2 2 2 3 3 2 2 1 0 0 0	 history1 history1 	 history2 history2 history2

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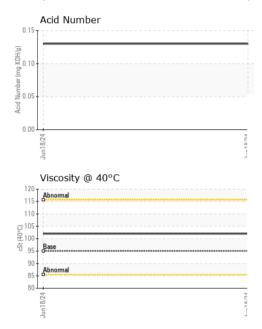
Submitted By: NEIL ARIANO



OIL ANALYSIS REPORT







VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>.1	NEG		
Free Water	scalar	*Visual		NEG		
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	95.0	102		
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
					_	
Color					no image	no image
					-	_
			1			
Bottom				ar I	no image	no image
			(
GRAPHS						
Ferrous Alloys				Particle Count	+	
			491,520·		-	T ²⁶
iron chromium			122,880			-24
			122,000	Severe		-24
			30,720	· · · ·		-22
			7,680	Abasan		20
24 25				-cononna		-20
Jun18/24			Jun 18/24 1'60 1 ml			-18
⊸ Non-ferrous Metal	c .		다. 18 년 480-			-16
T The second second	5		of part		S	10
copper			Jun18/24 1001 1900 - 1001 1001 - 1001 - 1001 1001 - 1001 - 1001 1001 - 1001 - 1001 1001 -			-14
tin					\	-12
			50.			
					\backslash	-10
					\backslash	-10
			- 18/24			-10 -8
Jun18/24			_	и бји	14μ 21μ	-10 -6 -8 -71µ
hzgung Viscosity @ 40°C			Jun 18,24	م مرفع مرفع Acid Number	14µ 21µ	-8
Viscosity @ 40°C			Jun 18,24	م Acid Number	14μ 21μ	-8
Viscosity @ 40°C			Jun 18,24	a وأبا Acid Number	14µ 21µ	-8
Viscosity @ 40°C			Jun 18,24	a وأب Acid Number	14µ 21µ	-8
Viscosity @ 40°C			Jun 18,24	a 6ju Acid Number	14μ 21μ	-8
Viscosity @ 40°C			-2. -0.10 -0.15 -0.00 -0.10 -0.000 -0.00 -0.00 -0.00 -0.000 -000 -000 -0.000 -000 -	Acid Number	14µ 21µ	-8
Viscosity @ 40°C			-2. -0.10 -0.15 -0.00 -0.10 -0.000 -0.00 -0.00 -0.00 -0.000 -000 -000 -0.000 -000 -	Acid Number	14µ 21µ	⁻⁸ 38μ 71μ
Viscosity @ 40°C			2. aid Mumber (0.15- 0.1.0. 0.0.10.10. 0.0.10.10. 0.0.10.10.10.10. 0.0.10.10.10.10.10.10.10.10.10.10.10.10.	Acid Number	14µ 21µ	-8 38μ 71μ
Viscosity @ 40°C			Jun 18/24 4 0.15 4 0.00 0	Acid Number		-8 38μ 71μ
Viscosity @ 40°C			4 4 4 4 6 4 6 4 6 10 10 10 10 10 10 10 10 10 10	Acid Number	PAPI	38μ 71μ
Viscosity @ 40°C	1 Madiso Recei Teste	i ved : 20	Jun 18/24 4 0.15 4 0.00 0	Acid Number	PAPI	-8

Lab Number : 06215787 Unique Number : 11088651 Certificate L2367 Test Package : IND 2 (Ac

Laboratory

Sample No.

 Centificate 12367
 Test Package
 : IND 2 (Additional Tests: PrtCount)

 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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Submitted By: NEIL ARIANO

Contact: NEIL ARIANO

njariano@hormel.com

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