

PROBLEM SUMMARY

Area MACHINE IO Machine IO GARDNER DENVER S102550 - SIGMA MACHINE INC Component

Component Compressor

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	
Copper	ppm	ASTM D5185m	>50	1 78	

Customer Id: UCMICGRA Sample No.: UCH06217022 Lab Number: 06217022 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 jhester@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS								
Action	Status	Date	Done By	Description				
Inspect Wear Source		?	We advise that you inspect for the source(s) of wear.					
Change Fluid			?	We recommend that you drain the oil from the component if this has not already been done.				
Resample			?	We recommend an early resample to monitor this condition.				

HISTORICAL DIAGNOSIS





Area MASS 46 [P13001224] GARDNER DENVER S102550 - SIGMA MACHINE INC

OIL ANALYSIS REPORT

Component Compressor

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

A Wear

The copper level is severe.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is at the top-end of the recommended limit.

SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		UCH06217022		
Sample Date		Client Info		12 Jun 2024		
Machine Age	hrs	Client Info		44249		
Oil Age	hrs	Client Info		5		
Oil Changed		Client Info		Not Changd		
Sample Status				SEVERE		
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	37		
Chromium	ppm	ASTM D5185m	>10	0		
Nickel	ppm	ASTM D5185m		0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>25	19		
Lead	ppm	ASTM D5185m	>25	10		
Copper	ppm	ASTM D5185m	>50	🔺 178		
Tin	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<1		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		<1		
Calcium	ppm	ASTM D5185m		23		
Phosphorus	ppm	ASTM D5185m		829		
Zinc	ppm	ASTM D5185m		237		
Sulfur	ppm	ASTM D5185m		664		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	2		
Sodium	ppm	ASTM D5185m		12		
Potassium	ppm	ASTM D5185m	>20	4		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		— 1.67		

WEAR



150 튭. 100 50 0. Jun12/24

Acid Number (mg KOH/g)

54 -52 -50 -(J.0f) 46 -33 44 -

OIL ANALYSIS REPORT

200-	Non-ferrous Metals		VISUAL		method	limit/base	current	history1	history2
200	copper land		White Metal	scalar	*Visual	NONE	NONE		
150-	sussessing tin		Yellow Metal	scalar	*Visual	NONE	NONE		
100			Precipitate	scalar	*Visual	NONE	NONE		
L.			Silt	scalar	*Visual	NONE	NONE		
50-			Debris	scalar	*Visual	NONE	NONE		
οL			Sand/Dirt	scalar	*Visual	NONE	NONE		
	12/24	12/24	Appearance	scalar	*Visual	NORML	NORML		
	nu l	Jur	Odor	scalar	*Visual	NORML	NORML		
	Acid Number		Emulsified Water	scalar	*Visual	>0.1	NEG		
2.0			Free Water	scalar	*Visual		NEG		
B 1.5 -			FLUID PROPERT	IES	method	limit/base	current	history1	history2
B 1.0-			Visc @ 40°C	cSt	ASTM D445		51.9		
B 0.5 -			SAMPLE IMAGES	5	method	limit/base	current	history1	history2
0.0	Jun 12/24	Jun12/24	Color					no image	no image
54 - 52 - 50 -	Viscosity @ 40°C		Bottom					no image	no image
15 40 0€ 46			GRAPHS						
3 44 -			Ferrous Allovs						
38	- 1224 -	800 Ch	Non-ferrous Metals	s		Jun12/24	Acid Number		
		ratory	WearCheck USA 50	1 Madica	n Avo. Com	Acid Number	0 .5 .0 .0 .57 lunf		D SOI TITIONS
	Labo Samp Lab Unique Certificate L2367 To discuss this samp * - Denotes test meth Statements of conform	Number Number Number Package le report, ods that a mity to sc	: UCH06217022 : 06217022 : 11089886 : IND 2 contact Customer Servi are outside of the ISO 12 pecifications are based of	Teste Teste Diagr Ce at 1-8 7025 sco	ived : 21 id : 24 nosed : 24 200-237-1365 ope of accred	r, NC 27513 I Jun 2024 I Jun 2024 Jun 2024 - Jona Jun 2024 - Jona Jun 2024 - Jona Jun 2024 - Jona Accession	athan Hester n rule (JCGM 106	Contact: KEVI kev S:2012) F:	CLAY AVE SW ND RAPIDS, MI US 49548 N GEERTMAN /in@mi-air.com T: (616)531-0084

Report Id: UCMICGRA [WUSCAR] 06217022 (Generated: 06/24/2024 17:53:36) Rev: 1

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