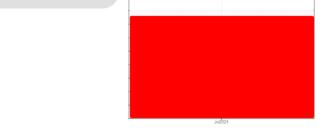




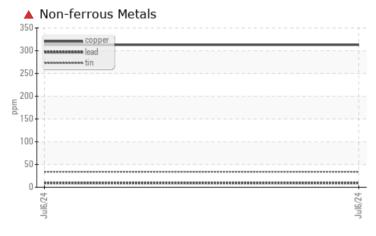
PROBLEM SUMMARY





Machine Id **K2 P2 SE** Component **Bearing** Fluid **MOBIL MOBILGEAR SHC 1500 (40 LTR)**

COMPONENT CONDITION SUMMARY



▲ Ferrous Alloys

35 T		
30-	iron chromium nickel	
25		
20		
15		
10		
5		
0	••••••••••••••••••••••••••••••••••••••	_
	Jul6/24 Jul6/24	fains

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS								
Sample Status				SEVERE				
Iron	ppm	ASTM D5185(m)	>20	A 35				
Copper	ppm	ASTM D5185(m)	>20	A 313				
Tin	ppm	ASTM D5185(m)	>20	<u> </u>				

Customer Id: CARDUN Sample No.: WC0959794 Lab Number: 02647698 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Kevin Marson +1 (289)291-4644 x4644 Kevin.Marson@wearcheck.com

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 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



OIL ANALYSIS REPORT

WEAR

Machine Id K2 P2 SE Component Bearing Fluid MOBIL MOBILGEAR SHC 1500 (40 LTR)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

🔺 Wear

Copper ppm levels are severe. Iron and tin ppm levels are abnormal. Bearing wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0959794		
Sample Date		Client Info		06 Jul 2024		
Machine Age	mths	Client Info		4		
Oil Age	mths	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				SEVERE		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		12		
Iron	ppm	ASTM D5185(m)	>20	▲ 35		
Chromium	ppm	ASTM D5185(m)	>20	0		
Nickel	ppm	ASTM D5185(m)		1		
Titanium	ppm	ASTM D5185(m)	220	3		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>20	1		
Lead	ppm	ASTM D5185(m)		9		
Copper		ASTM D5185(m)	>20	y ▲ 313		
Tin	ppm ppm	ASTM D5185(m)		▲ 313 ▲ 34		
Antimony		ASTM D5185(m)	>20	0		
Vanadium	ppm ppm	ASTM D5185(m)		0		
Beryllium		ASTM D5185(m) ASTM D5185(m)		0		
,	ppm	. /		-		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		20		
Barium	ppm	ASTM D5185(m)		0		
Molybdenum	ppm	ASTM D5185(m)		0		
Manganese	ppm	ASTM D5185(m)		<1		
Magnesium	ppm	ASTM D5185(m)		30		
Calcium	ppm	ASTM D5185(m)		61		
Phosphorus	ppm	ASTM D5185(m)		188		
Zinc	ppm	ASTM D5185(m)		7		
Sulfur	ppm	ASTM D5185(m)		3853		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINANTS	\$	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	10		
Sodium	ppm	ASTM D5185(m)		2		
Potassium	ppm	ASTM D5185(m)	>20	<1		
FLUID DEGRADA		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		0.94		



1650 1600 () 1550 -0(+) 1500 -²⁵ 1450 -Base

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OIL ANALYSIS REPORT

	;	١	VISUAL		method	limit/base	e current	history1	history2
copper		w	hite Metal	scalar	Visual*	NONE	LIGHT		
tin			ellow Metal		Visual*	NONE	NONE		
			ecipitate	scalar	Visual*	NONE	NONE		
		Si	lt	scalar	Visual*	NONE	NONE		
		De	ebris	scalar	Visual*	NONE	LIGHT		
		Sa	and/Dirt	scalar	Visual*	NONE	LIGHT		
Jul6/24		Ap Ap	opearance	scalar	Visual*	NORML	NORML		
n P		٦ O	dor	scalar	Visual*	NORML	NORML		
Ferrous Alloys		Er	nulsified Water	scalar	Visual*	>2	NEG		
		- Fr	ee Water	scalar	Visual*		NEG		
iron chromium nickel		F	FLUID PROPERT	IES	method	limit/base	e current	history1	history2
		Vi	sc @ 40°C	cSt	ASTM D7279(m)	1500	1550		
		5	SAMPLE IMAGES	5	method	limit/base	e current	history1	history2
Jul6/24		Jul6/24	olor					no image	no image
Acid Number		Bo	ottom					no image	no image
			GRAPHS						
			Ferrous Alloys				PQ		
		40 T	cirous Alloys				²²⁰ T		
		30-	iron chromium				200 Severe		
Jul6/24		ко а	••••••••••• nickel				180		
Ju									
Viscosity @ 40°C		10-					160 -		
Abnormal			47 47				140 -		
			Jul6/2/				120 -		
			Non forrous Motal	c .		, DA	100 - Abnormal		
Base		400 T	Non-ferrous Metal	s			80-		
		300-	copper						
Abnormal		틆 200 -	tin				60		
Abnormal							40		
Jul6/24		100- S					20-		
		10	74			24	0		
		<u>-</u>	Julb/			Jul6,	Jul6/2		
PQ			Viscosity @ 40°C				Acid Number		
Severe		1700	Abnormal			(B/	1.0		
		1600-				KOH	0.8		
Abnormal		()-0+) 1500 -	Base			er (mg	0.6 -		
		1400				dumb.	0.4		
			Abnormal			Acid Number (0.2		
-			- 92/9			24	24.		
Jul6/2		161 OL 1				Julí	Jul		
		ory : Weat No. : WC mber : 026 umber : 581	arCheck - C8-1175 :0959794 :4 7698	Recei Teste Diagn	ved : 12 d : 12 losed : 15	gton, ON L 2 Jul 2024 2 Jul 2024 Jul 2024 - Ki	7L 5H9 Carmeuse	Lime (Canada) Ltd R.R. #2	Dundas Operati 2, 600 5 Hwy Dundas, 4 CA L9H 5

Report Id: CARDUN [WCAMIS] 02647698 (Generated: 07/15/2024 08:41:03) Rev: 1

Contact/Location: Harsh Murria - CARDUN Page 4 of 4