



PROBLEM SUMMARY

Sample Rating Trend

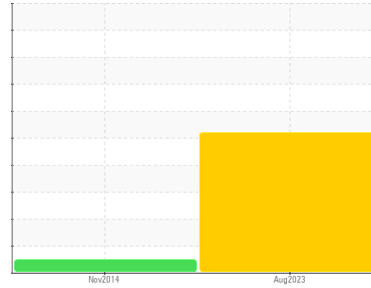
WEAR



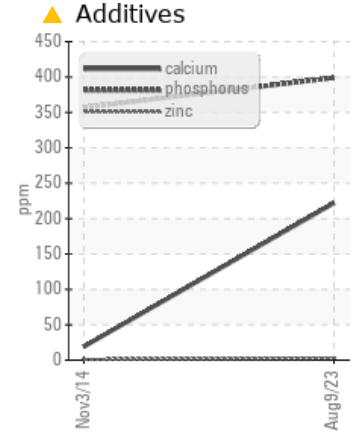
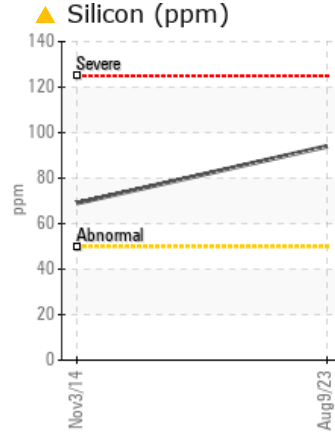
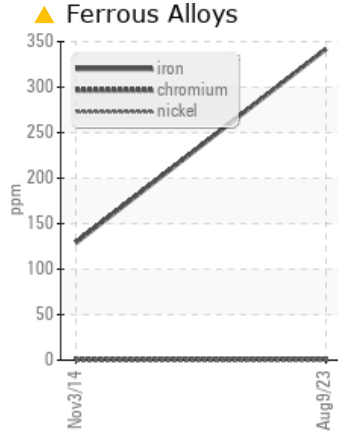
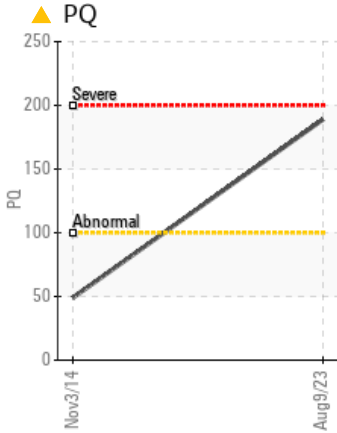
Machine Id
BROWNING 215 N/A #16 SCREW

Component
Gearbox

Fluid
MOBIL MOBILGEAR SHC 220 (9 LTR)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. 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. 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. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique. **DISCLAIMER:** Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	---
PQ		ASTM D8184*		▲ 189	49	---
Iron	ppm	ASTM D5185(m)	>200	▲ 342	129	---
Calcium	ppm	ASTM D5185(m)		▲ 222	19	---
Silicon	ppm	ASTM D5185(m)	>50	▲ 94	69	---
Debris	scalar	Visual*	NONE	▲ MODER	VLITE	---
PrtFilter					no image	no image

Customer Id: REIBLI
Sample No.: WC0795505
Lab Number: 02575484
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
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Kevin.Marson@wearcheck.com

To change component or sample information:
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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.
Alert	---	---	?	We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique. DISCLAIMER: Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.
Check Breathers	---	---	?	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.
Check Dirt Access	---	---	?	We advise that you check all areas where contaminants can enter the system.

HISTORICAL DIAGNOSIS

03 Nov 2014 Diag: Kevin Marson

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the component. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

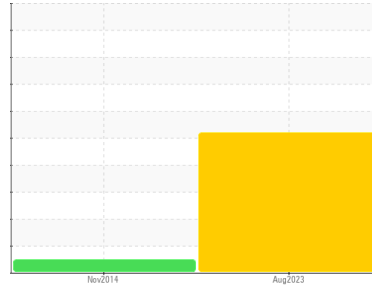




OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



Machine Id
BROWNING 215 N/A #16 SCREW

Component
Gearbox
Fluid
MOBIL MOBILGEAR SHC 220 (9 LTR)

DIAGNOSIS

▲ Recommendation

We advise that you check all areas where contaminants can enter the system. 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. 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. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique. **DISCLAIMER:** Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.

▲ Wear

PQ levels are abnormal. Iron ppm levels are abnormal. Gear wear is indicated. The high ferrous density (PQ) index indicates that abnormal wear is occurring.

▲ Contamination

Calcium and/or magnesium levels higher than normal indicating possible lime contamination, advise investigate. Moderate concentration of visible dirt/debris present in the oil. There is a moderate concentration of dirt present in the oil. High amount of ingressed dirt has caused abrasive wear to the component.

▲ 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 INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0795505	WC925143	---
Sample Date	Client Info	09 Aug 2023	03 Nov 2014	---
Machine Age	hrs	0	52366	---
Oil Age	hrs	0	29656	---
Oil Changed	Client Info	Not Changed	Not Changed	---
Sample Status		ABNORMAL	NORMAL	---

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	▲ 189	49	---
Iron	ppm ASTM D5185(m) >200	▲ 342	129	---
Chromium	ppm ASTM D5185(m) >15	1	<1	---
Nickel	ppm ASTM D5185(m) >15	<1	<1	---
Titanium	ppm ASTM D5185(m)	<1	<1	---
Silver	ppm ASTM D5185(m)	0	0	---
Aluminum	ppm ASTM D5185(m) >25	2	<1	---
Lead	ppm ASTM D5185(m) >100	0	0	---
Copper	ppm ASTM D5185(m) >200	<1	<1	---
Tin	ppm ASTM D5185(m) >25	0	0	---
Antimony	ppm ASTM D5185(m) >5	0	<1	---
Vanadium	ppm ASTM D5185(m)	0	0	---
Beryllium	ppm ASTM D5185(m)	0	0	---
Cadmium	ppm ASTM D5185(m)	0	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)	11	18	---
Barium	ppm ASTM D5185(m)	0	0	---
Molybdenum	ppm ASTM D5185(m)	0	0	---
Manganese	ppm ASTM D5185(m)	2	1	---
Magnesium	ppm ASTM D5185(m)	8	1	---
Calcium	ppm ASTM D5185(m)	▲ 222	19	---
Phosphorus	ppm ASTM D5185(m)	399	357	---
Zinc	ppm ASTM D5185(m)	3	<1	---
Sulfur	ppm ASTM D5185(m)	2062	2001	---
Lithium	ppm ASTM D5185(m)	<1	<1	---

CONTAMINANTS

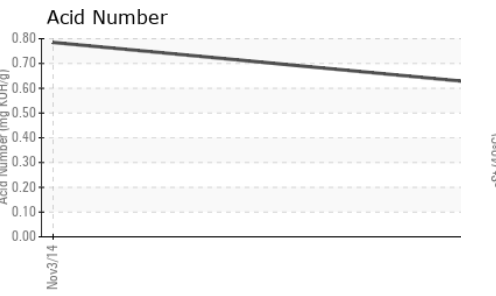
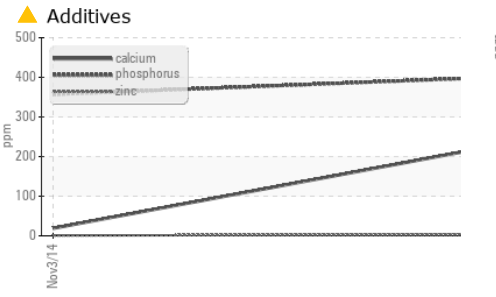
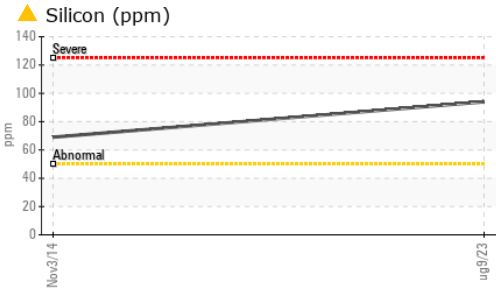
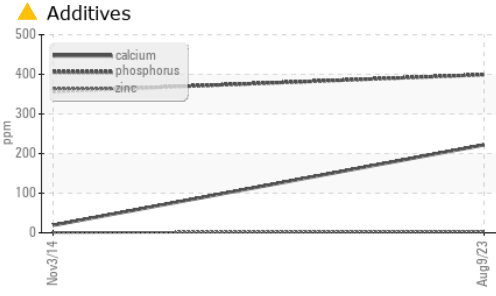
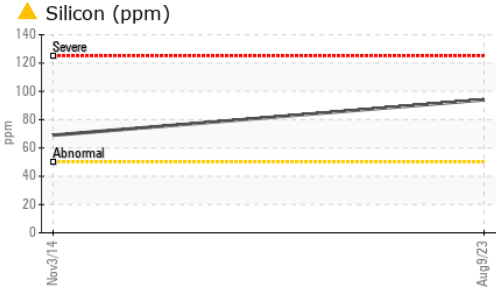
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >50	▲ 94	69	---
Sodium	ppm ASTM D5185(m)	0	0	---
Potassium	ppm ASTM D5185(m) >20	15	11	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*	0.62	0.785	---



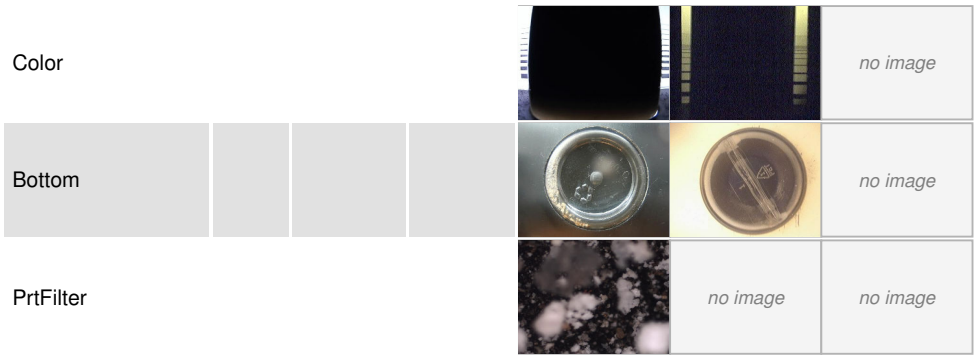
OIL ANALYSIS REPORT



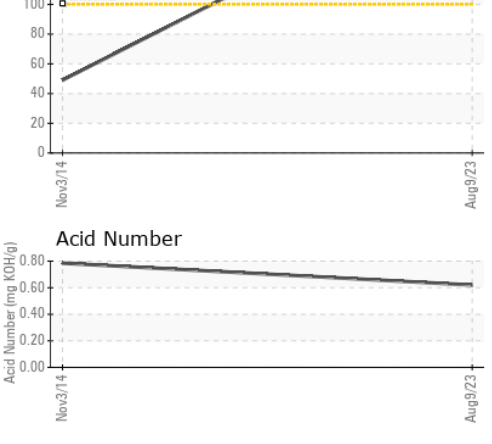
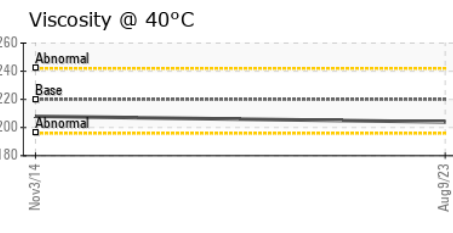
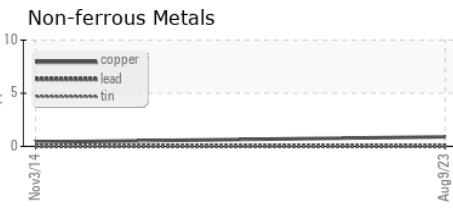
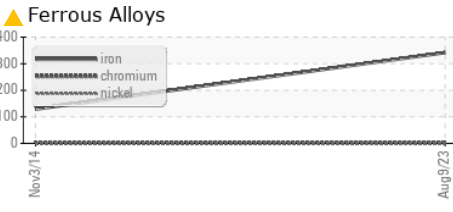
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	▲ MODER	VLITE
Sand/Dirt	scalar	Visual*	NONE	VLITE	NONE
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	220	204	208

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0795505 **Received** : 11 Aug 2023
Lab Number : 02575484 **Diagnosed** : 15 Aug 2023
Unique Number : 5620535 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: BottomAnalysis, FILTERPATCH, TAN Man)

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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.