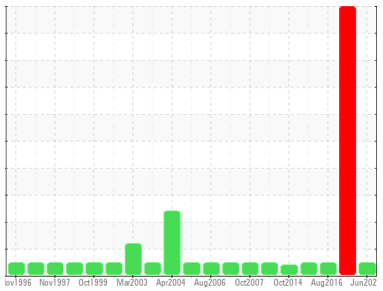
# OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
## BROWNING 215 525620 #20 SCREW
Component
**Gearbox**
Fluid
**MOBIL MOBILGEAR SHC 220 (9 LTR)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**Contamination**
There is no indication of any contamination in the oil.

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

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0951873** | WC0750576 | WC938417 |
| Sample Date | | Client Info | | **19 Jun 2024** | 01 Feb 2024 | 30 Aug 2016 |
| Machine Age | hrs | Client Info | | **0** | 0 | 34000 |
| Oil Age | hrs | Client Info | | **0** | 0 | 1000 |
| Oil Changed | | Client Info | | **Not Changd** | N/A | Not Changd |
| Sample Status | | | | **NORMAL** | SEVERE | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >0.2 | **NEG** | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| PQ | | ASTM D8184* | | **2** | ▲ 1824 | 19 |
| Iron | ppm | ASTM D5185(m) | >200 | **21** | ▲ 1229 | 10 |
| Chromium | ppm | ASTM D5185(m) | >15 | **0** | 5 | 0 |
| Nickel | ppm | ASTM D5185(m) | >15 | **<1** | 1 | 0 |
| Titanium | ppm | ASTM D5185(m) | | **0** | 3 | 0 |
| Silver | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >25 | **1** | ● 43 | <1 |
| Lead | ppm | ASTM D5185(m) | >100 | **0** | 0 | 0 |
| Copper | ppm | ASTM D5185(m) | >200 | **<1** | 2 | <1 |
| Tin | ppm | ASTM D5185(m) | >25 | **0** | 0 | 0 |
| Antimony | ppm | ASTM D5185(m) | >5 | **0** | 0 | 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 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185(m) | | **6** | 90 | 9 |
| Barium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | | **<1** | 8 | <1 |
| Magnesium | ppm | ASTM D5185(m) | | **1** | ● 65 | 0 |
| Calcium | ppm | ASTM D5185(m) | | **31** | ● 2243 | 12 |
| Phosphorus | ppm | ASTM D5185(m) | | **374** | ● 1071 | 403 |
| Zinc | ppm | ASTM D5185(m) | | **1** | 5 | <1 |
| Sulfur | ppm | ASTM D5185(m) | | **2695** | 2587 | 1671 |
| Lithium | ppm | ASTM D5185(m) | | **<1** | <1 | <1 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185(m) | >50 | **18** | ▲ 193 | 18 |
| Sodium | ppm | ASTM D5185(m) | | **0** | 14 | <1 |
| Potassium | ppm | ASTM D5185(m) | >20 | **2** | 86 | 4 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D974* | | **0.81** | 0.68 | 0.69 |

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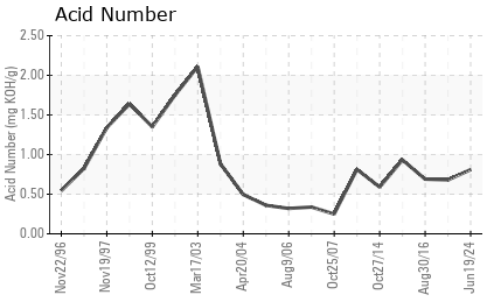
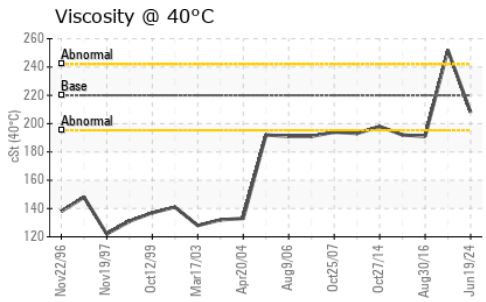
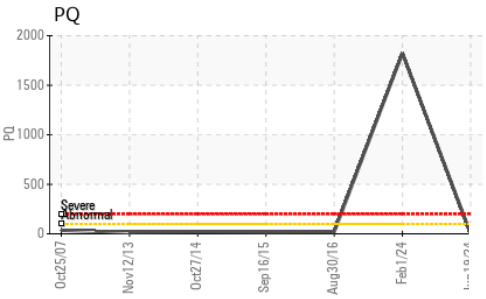


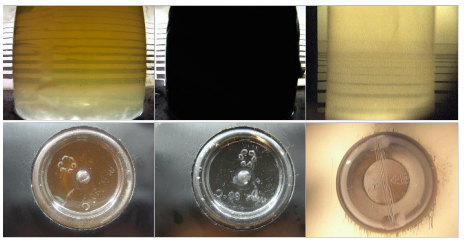



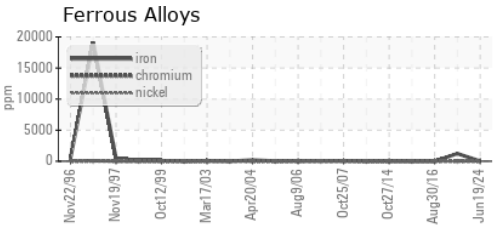

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | Visual* | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | Visual* | NONE | **NONE** | NONE | NONE |
|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

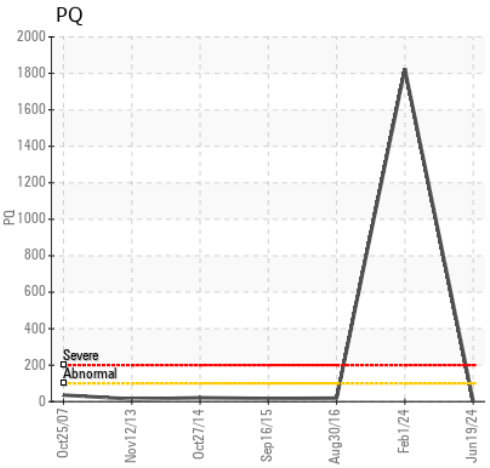
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D7279(m) | 220 | **208** | 252 | 191 |

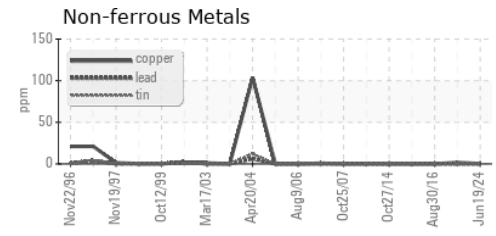
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | | | | |
| Bottom | | | | | |

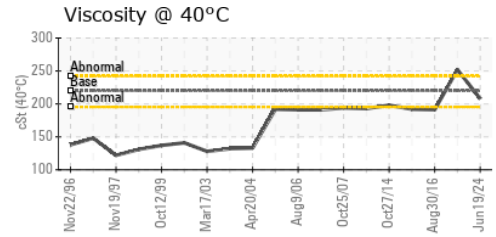


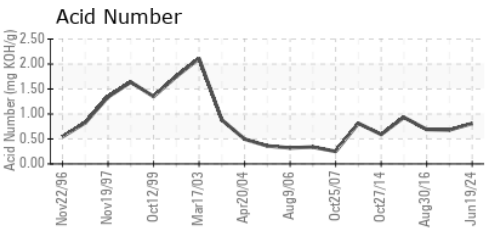
## GRAPHS




ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
**Sample No.** : WC0951873 **Received** : 21 Jun 2024
**Lab Number** : 02643495 **Tested** : 21 Jun 2024
**Unique Number** : 5801034 **Diagnosed** : 21 Jun 2024 - Wes Davis
**Test Package** : IND 2 ( Additional Tests: TAN Man )

*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.*

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