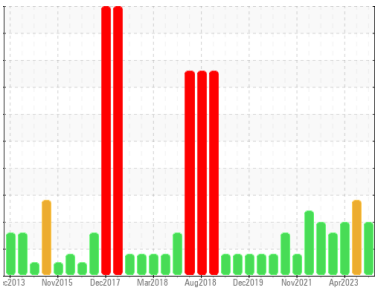
# PROBLEM SUMMARY

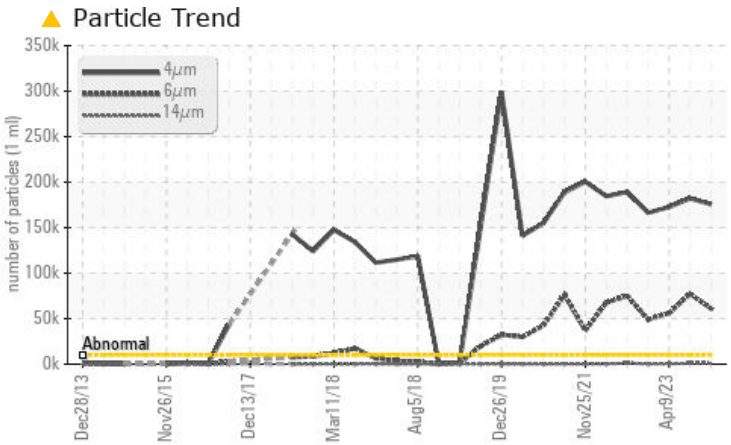
Sample Rating Trend



ISO

Area
**412**
Machine Id
**73 BANBURY MOTOR**
Component
**Inboard Journal Bearing**
Fluid
**ESSO NUTO H ISO 68 (1 QTS)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

No corrective action is recommended at this time. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

| Sample Status | | | | ABNORMAL | ABNORMAL | ABNORMAL |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >10000 | ▲ **175644** | ▲ 182105 | ▲ 172657 |
| Particles >6µm | | ASTM D7647 | >2500 | ▲ **61135** | ▲ 77210 | ▲ 55990 |
| Particles >14µm | | ASTM D7647 | >160 | ▲ **822** | ▲ 951 | ▲ 390 |
| Particles >21µm | | ASTM D7647 | >40 | ▲ **124** | ▲ 135 | ▲ 45 |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/14 | ▲ **25/23/17** | ▲ 25/23/17 | ▲ 25/23/16 |

**Customer Id:** BRIDES
**Sample No.:** WC0640566
**Lab Number:** 05923340
**Test Package:** IND 2

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

**05 Jul 2023 Diag: Angela Borella**

WEAR

No corrective action is recommended at this time. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.The tin level is abnormal. All other component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

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**09 Apr 2023 Diag: Don Baldridge**

ISO

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

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**30 Dec 2022 Diag: Angela Borella**

ISO

No corrective action is recommended at this time. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

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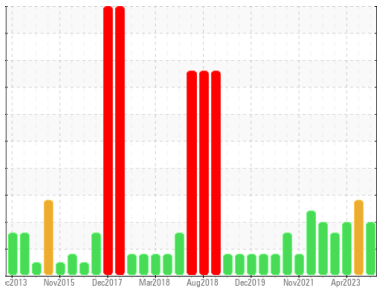
# OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
**412**
Machine Id
## 73 BANBURY MOTOR
Component
**Inboard Journal Bearing**
Fluid
**ESSO NUTO H ISO 68 (1 QTS)**

## DIAGNOSIS

**Recommendation**
No corrective action is recommended at this time. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

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

**Contamination**
There is a high amount of particulates 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 INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0640566** | WC0397538 | WC0569579 |
| Sample Date | | Client Info | | **07 Aug 2023** | 05 Jul 2023 | 09 Apr 2023 |
| Machine Age | mths | Client Info | | **1** | 0 | 0 |
| Oil Age | mths | Client Info | | **0** | 6 | 4 |
| Oil Changed | | Client Info | | **Changed** | Changed | N/A |
| Sample Status | | | | **ABNORMAL** | ABNORMAL | ABNORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| PQ | | ASTM D8184 | | **10** | 10 | 9 |
| Iron | ppm | ASTM D5185m | >60 | **0** | <1 | 0 |
| Chromium | ppm | ASTM D5185m | >20 | **0** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >20 | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >4 | **<1** | <1 | 0 |
| Lead | ppm | ASTM D5185m | >250 | **<1** | 2 | 0 |
| Copper | ppm | ASTM D5185m | >125 | **8** | 20 | 26 |
| Tin | ppm | ASTM D5185m | >80 | **50** | ▲ 86 | 37 |
| Vanadium | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 0 | **0** | 0 | 0 |
| Barium | ppm | ASTM D5185m | 0 | **<1** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | **0** | <1 | <1 |
| Manganese | ppm | ASTM D5185m | | **<1** | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | 5 | **7** | 0 | 5 |
| Calcium | ppm | ASTM D5185m | 50 | **43** | 39 | 49 |
| Phosphorus | ppm | ASTM D5185m | 330 | **326** | 333 | 341 |
| Zinc | ppm | ASTM D5185m | 420 | **402** | 421 | 425 |
| Sulfur | ppm | ASTM D5185m | 3100 | **3114** | 3134 | 2748 |

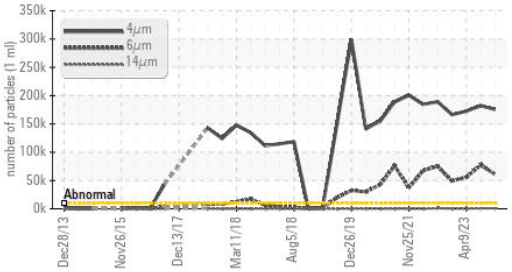
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >50 | **2** | 2 | 1 |
| Sodium | ppm | ASTM D5185m | | **2** | 0 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | **0** | 1 | 0 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >10000 | ▲ **175644** | ▲ 182105 | ▲ 172657 |
| Particles >6µm | | ASTM D7647 | >2500 | ▲ **61135** | ▲ 77210 | ▲ 55990 |
| Particles >14µm | | ASTM D7647 | >160 | ▲ **822** | ▲ 951 | ▲ 390 |
| Particles >21µm | | ASTM D7647 | >40 | ▲ **124** | ▲ 135 | ▲ 45 |
| Particles >38µm | | ASTM D7647 | >10 | **2** | 1 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/14 | ▲ **25/23/17** | ▲ 25/23/17 | ▲ 25/23/16 |

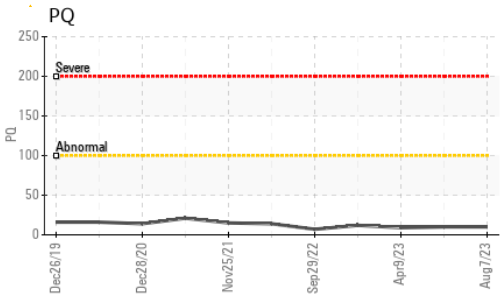
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | .40 | **0.41** | 0.40 | 0.37 |

# OIL ANALYSIS REPORT

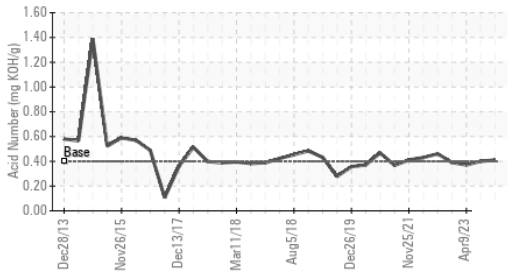
Particle Trend



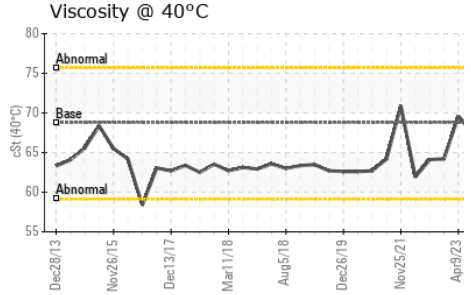

PQ



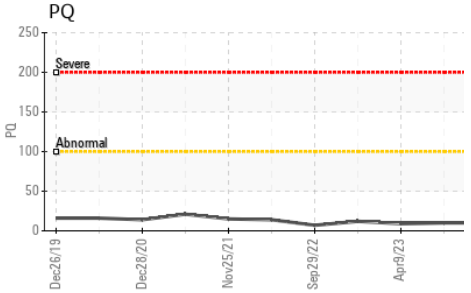

Acid Number




Viscosity @ 40°C



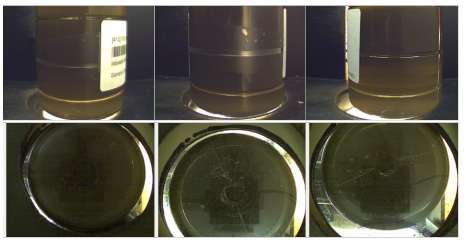

PQ




| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | LIGHT |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Debris | scalar | *Visual | NONE | **NONE** | NONE | 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 | >2 | **NEG** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

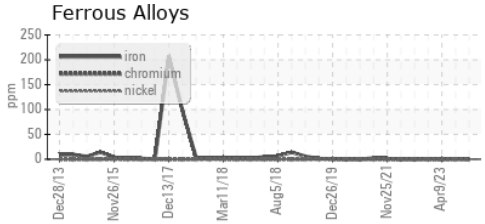
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 68.8 | **66.4** | 67.5 | 69.6 |

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

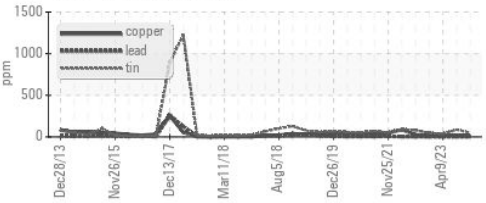


## GRAPHS

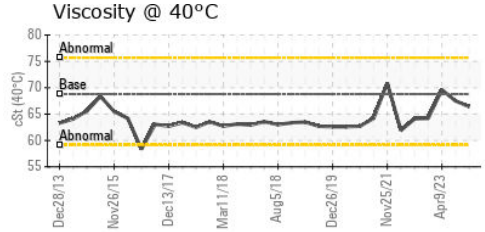
Ferrous Alloys



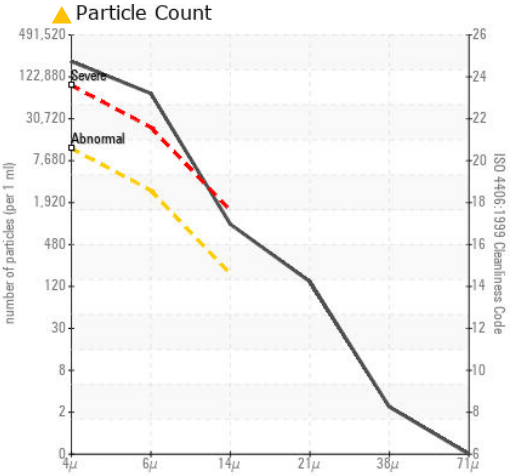

Non-ferrous Metals



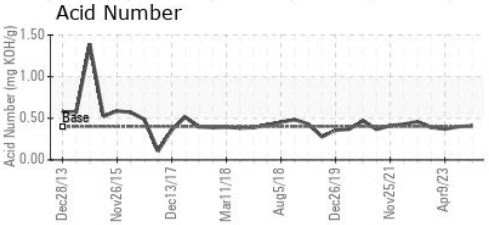

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0640566 **Received** : 14 Aug 2023
**Lab Number** : 05923340 **Diagnosed** : 18 Aug 2023
**Unique Number** : 10603287 **Diagnostician** : Doug Bogart
**Test Package** : IND 2 ( Additional Tests: PQ, 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)*

**BRIDGESTONE FIRESTONE - DES MOINES**
4600 NW 2ND AVE
DES MOINES, IA
US 50313
Contact: SCOTT CARTER
CarterScottA@FirestoneAg.com
T: x:
F: x: