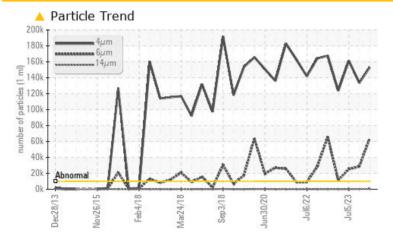


PROBLEM SUMMARY

Area 412 Machine Id 73 BANBURY MOTOR Component

Outboard 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	🔺 152985	🔺 133581	▲ 161477		
Particles >6µm	ASTM D7647	>2500	🔺 63911	🔺 28391	2 5144		
Particles >14µm	ASTM D7647	>160	6 508	A 326	77		
Particles >21µm	ASTM D7647	>40	6 1	6 4	9		
Oil Cleanliness	ISO 4406 (c)	>20/18/14	<u> </u>	<u> </u>	▲ 25/22/13		

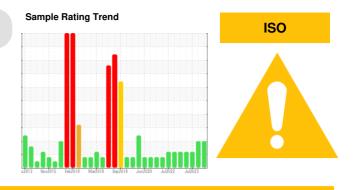
Customer Id: BRIDES Sample No.: WC0838890 Lab Number: 06009527 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Don Baldridge +1 don.b505@comcast.net

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



RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

07 Aug 2023 Diag: Doug Bogart

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 acceptable for the time in service.

05 Jul 2023 Diag: Angela Borella

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 silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



view report



09 Apr 2023 Diag: Don Baldridge

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 silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

412 Machine Id 73 BANBURY MOTOR

Component Outboard 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

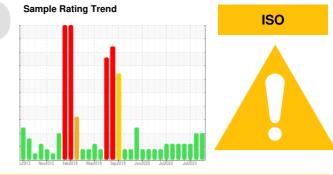
All component wear rates are normal.

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 acceptable for the time in service.



Sample DateImageClient InfoImageImageOF Aug 202305 Jul 2023Machine AgemthsClient Info616Oil AgemthsClient InfoChangedChangedChangedSample StatusImageClient InfoChangedChangedABNORMALCONTAMINATIONmethodImil/basecurrenthistory1history2WaterWC Method>2NEGNEGNEGWEAR METALSmethodImil/basecurrenthistory1history2PQASTM D8184161013IronppmASTM D8185>20000NickelppmASTM D8185>20000NickelppmASTM D8185>20000NickelppmASTM D8185>20000NickelppmASTM D8185>2507<12CopperppmASTM D8185>2507<10AluminumppmASTM D8185>1258813TinppmASTM D818500<10ASTM D8185>125881310CopperppmASTM D81850<100ASTM D818500<1000ASTM D818500<1000ASTM D818500<100 <th>SAMPLE INFORM</th> <th>ATION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Machine AgemthsClient InfoG16Oil AgemthsClient InfoOOOOil ChangedClient InfoABNORMALABNORMALABNORMALABNORMALABNORMALABNORMALCONTAMINATIONmethodlimit/basecurrenthistory1history2WaterWC Method>2NEGNEGNEGWEAR METALSmethodlimit/basecurrenthistory1history2PQASTM D8184161013161013IronppmASTM D51855>200000NickelppmASTM D51855>200000NickelppmASTM D51855>200000AluminumppmASTM D51855>2507<1	Sample Number		Client Info		WC0838890	WC0397548	WC0569514
Oil AgemthsClient Info0000Oil ChangedClient InfoChangedChangedChangedChangedChangedChangedChangedABNORMAL <td>Sample Date</td> <td></td> <td>Client Info</td> <td></td> <th>10 Nov 2023</th> <td>07 Aug 2023</td> <td>05 Jul 2023</td>	Sample Date		Client Info		10 Nov 2023	07 Aug 2023	05 Jul 2023
Oil Changed Sample Status Client Info Changed ABNORMAL ABNORMAL Netory2 Water WC Method >2 NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 PQ ASTM D5185m >60 <1	Machine Age	mths	Client Info		6	1	6
Sample StatusImit of the second statusABNORMALABNORMALABNORMALABNORMALCONTAMINATIONmethodlimit/basecurrenthistory1history2WaterWC Method>2NEGNEGNEGPQASTM D8184161013IronppmASTM D5185m>60<1	Oil Age	mths	Client Info		0	0	0
CONTAMINATION method limit/base current history1 history2 Water WC Method >2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 PQ ASTM D8184 16 10 13 Iron ppm ASTM D5185m >60 <1	Oil Changed		Client Info		Changed	Changed	Changed
Water WC Method >2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 PQ ASTM D8184 16 10 13 Iron ppm ASTM D5185m >60 <1 0 0 Chromium ppm ASTM D5185m >20 0 0 0 Nickel ppm ASTM D5185m >20 0 0 0 Silver ppm ASTM D5185m >4 <1 <1 <1 Lead ppm ASTM D5185m >4 <1 <1 2 Copper ppm ASTM D5185m >125 8 8 13 Tin ppm ASTM D5185m 0 <1 0 0 Cadmium ppm ASTM D5185m 0 <1 0 0 Baron ppm ASTM D5185m 0 <1 0 1 1 Magagesium	Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
WEAR METALS method limit/base current history1 history2 PQ ASTM D8184 16 10 13 Iron ppm ASTM D5185m >60 0 0 0 Nickel ppm ASTM D5185m >20 0 0 0 Nickel ppm ASTM D5185m >20 0 0 0 Silver ppm ASTM D5185m 0 -1 0 Aluminum ppm ASTM D5185m 0 -1 1 Lead ppm ASTM D5185m 0 -1 2 Copper ppm ASTM D5185m >250 7 -1 2 Copper ppm ASTM D5185m >250 7 -1 0 0 Cadmium ppm ASTM D5185m >250 7 -1 0 0 Cadmium ppm ASTM D5185m 0 0 -1 0 Boron pp	CONTAMINATION		method	limit/base	current	history1	history2
PQ ASTM D8184 16 10 13 Iron ppm ASTM D5185m >60 <1	Water		WC Method	>2	NEG	NEG	NEG
Iron ppm ASTM D5185m >60 <1	WEAR METALS		method	limit/base	current	history1	history2
Chromium ppm ASTM D5185m >20 0 0 0 Nickel ppm ASTM D5185m >20 0 0 0 Silver ppm ASTM D5185m 0 <1	PQ		ASTM D8184		16	10	13
Nickel ppm ASTM D5185m >20 0 0 0 Titanium ppm ASTM D5185m 0 <1	Iron	ppm	ASTM D5185m	>60	<1	0	<1
Titanium ppm ASTM D5185m 0 <1 0 Silver ppm ASTM D5185m >4 <1	Chromium	ppm	ASTM D5185m	>20	0	0	0
Silver ppm ASTM D5185m 0 0 0 Aluminum ppm ASTM D5185m >4 <1	Nickel	ppm	ASTM D5185m	>20	0	0	0
Aluminum ppm ASTM D5185m >4 <1	Titanium	ppm	ASTM D5185m		0	<1	0
Lead ppm ASTM D5185m >250 7 <1 2 Copper ppm ASTM D5185m >125 8 8 13 Tin ppm ASTM D5185m >80 32 27 37 Vanadium ppm ASTM D5185m 0 <1	Silver	ppm	ASTM D5185m		0	0	0
Copper ppm ASTM D5185m >12.5 8 8 13 Tin ppm ASTM D5185m >80 32 27 37 Vanadium ppm ASTM D5185m 0 <1	Aluminum	ppm	ASTM D5185m	>4	<1	<1	<1
Tin ppm ASTM D5185m >80 32 27 37 Vanadium ppm ASTM D5185m 0 <1	Lead	ppm	ASTM D5185m	>250	7	<1	2
Vanadium ppm ASTM D5185m 0 <1 0 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 0 Barium ppm ASTM D5185m 0 7 <1 0 Molybdenum ppm ASTM D5185m 0 7 <1 0 Manganese ppm ASTM D5185m 0 0 <1 <1 0 Magnesium ppm ASTM D5185m 5 <1 7 0 Calcium ppm ASTM D5185m 50 42 43 38 Phosphorus ppm ASTM D5185m 3100 3236 3081 3150 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 2	Copper	ppm	ASTM D5185m	>125	8	8	13
Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 7 <1	Tin	ppm	ASTM D5185m	>80	32	27	37
ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m0000BariumppmASTM D5185m07<1	Vanadium	ppm	ASTM D5185m		0	<1	0
Boron ppm ASTM D5185m 0 0 0 0 0 Barium ppm ASTM D5185m 0 7 <1	Cadmium	ppm	ASTM D5185m		<1	0	0
Barium ppm ASTM D5185m 0 7 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 0 <1 <1 Manganese ppm ASTM D5185m 0 0 <1	Boron	ppm	ASTM D5185m	0	0	0	0
Manganese ppm ASTM D5185m 0 <1 0 Magnesium ppm ASTM D5185m 5 <1	Barium	ppm	ASTM D5185m	0	7	<1	0
Magnesium ppm ASTM D5185m 5 <1 7 0 Calcium ppm ASTM D5185m 50 42 43 38 Phosphorus ppm ASTM D5185m 330 323 324 331 Zinc ppm ASTM D5185m 420 394 398 415 Sulfur ppm ASTM D5185m 3100 3236 3081 3150 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 2 2 2 Sodium ppm ASTM D5185m >20 21 21 0 Potassium ppm ASTM D5185m >20 <1 <1< <1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 152985 133581 161477 Particles >6µm ASTM D7647 >2500 63911 28391 25144 Particles >14µm ASTM D7647 >16	Molybdenum	ppm	ASTM D5185m	0	0	<1	<1
Calcium ppm ASTM D5185m 50 42 43 38 Phosphorus ppm ASTM D5185m 330 323 324 331 Zinc ppm ASTM D5185m 420 394 398 415 Sulfur ppm ASTM D5185m 3100 3236 3081 3150 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 2 2 2 Sodium ppm ASTM D5185m >50 2 2 0 Potassium ppm ASTM D5185m >20 <1	Manganese	ppm	ASTM D5185m		0	<1	0
Phosphorus ppm ASTM D5185m 330 323 324 331 Zinc ppm ASTM D5185m 420 394 398 415 Sulfur ppm ASTM D5185m 3100 3236 3081 3150 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 2 2 2 Sodium ppm ASTM D5185m >50 2 0 0 Potassium ppm ASTM D5185m >20 <1	Magnesium	ppm	ASTM D5185m	5	<1	7	0
Zinc ppm ASTM D5185m 420 394 398 415 Sulfur ppm ASTM D5185m 3100 3236 3081 3150 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 2 2 2 Sodium ppm ASTM D5185m >50 2 0 0 Potassium ppm ASTM D5185m >20 <1	Calcium	ppm	ASTM D5185m	50	42	43	38
SulfurppmASTM D5185m3100323630813150CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50222SodiumppmASTM D5185m>0020PotassiumppmASTM D5185m>20<1	Phosphorus	ppm	ASTM D5185m	330	323	324	331
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 2 2 2 Sodium ppm ASTM D5185m >50 2 2 0 Potassium ppm ASTM D5185m >20 <1	Zinc	ppm	ASTM D5185m	420	394	398	415
Silicon ppm ASTM D5185m >50 2 2 2 2 Sodium ppm ASTM D5185m >00 2 0 2 0 Potassium ppm ASTM D5185m >20 <1 <1 <1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >10000 ▲ 152985 ▲ 133581 ▲ 161477 Particles >6μm ASTM D7647 >2500 ▲ 63911 ▲ 28391 ▲ 25144 Particles >14μm ASTM D7647 >160 ▲ 508 ▲ 326 77	Sulfur	ppm	ASTM D5185m	3100	3236	3081	3150
Sodium ppm ASTM D5185m 0 2 0 Potassium ppm ASTM D5185m >20 <1 <1 <1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 ▲ 152985 ▲ 133581 ▲ 161477 Particles >6µm ASTM D7647 >2500 ▲ 63911 ▲ 28391 ▲ 25144 Particles >14µm ASTM D7647 >160 ▲ 508 ▲ 326 77	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1 <1 <1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 152985 133581 161477 Particles >6µm ASTM D7647 >2500 63911 28391 25144 Particles >14µm ASTM D7647 >160 508 326 77	Silicon	ppm	ASTM D5185m	>50	2	2	2
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >10000 ▲ 152985 ▲ 133581 ▲ 161477 Particles >6μm ASTM D7647 >2500 ▲ 63911 ▲ 28391 ▲ 25144 Particles >14μm ASTM D7647 >160 ▲ 508 ▲ 326 77	Sodium		ASTM D5185m		0	2	0
Particles >4μm ASTM D7647 >10000 152985 133581 161477 Particles >6μm ASTM D7647 >2500 63911 28391 25144 Particles >14μm ASTM D7647 >160 508 326 77	Potassium	ppm	ASTM D5185m	>20	<1	<1	<1
Particles >6μm ASTM D7647 >2500 ▲ 63911 ▲ 28391 ▲ 25144 Particles >14μm ASTM D7647 >160 ▲ 508 ▲ 326 77	FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >160 ▲ 508 ▲ 326 77	Particles >4µm		ASTM D7647	>10000	152985	▲ 133581	▲ 161477
	Particles >6µm		ASTM D7647	>2500	<u> </u>	A 28391	2 5144
Particles >21µm ASTM D7647 >40 ▲ 61 ▲ 64 9	Particles >14µm		ASTM D7647	>160	<u> </u>	A 326	77
	Particles >21µm		ASTM D7647	>40	<u> </u>	6 4	9

ASTM D7647 >10

ASTM D7647 >3

1

0

ISO 4406 (c) >20/18/14 **4 24/23/16**

Particles >38µm

Particles >71µm

Oil Cleanliness

1

0

▲ 24/22/16

0

0

▲ 25/22/13



Acid 1.20

(B/H0) E0.7 a u u 0.48 Base

Pio 0.2 0.00

OIL ANALYSIS REPORT

mg KOH/g

scalar

scalar

scalar

scalar

scalar

scalar

scalar

scalar

limit/base

limit/base

.40

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

limit/base

>2

68.8

current

current

0.38

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

current

NEG

NEG

66.2

method

ASTM D8045

method

*Visual

method

ASTM D445

method

FLUID DEGRADATION

Acid Number (AN)

VISUAL

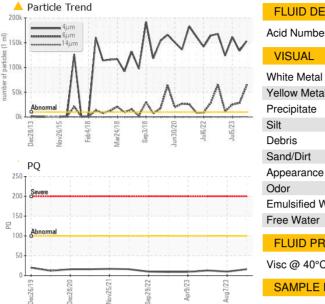
White Metal

Yellow Metal

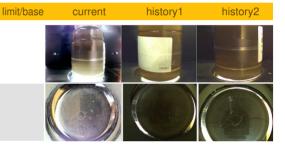
Precipitate

Silt

Debris



		1			Emulsified Water	scalar
nal					Free Water	scalar
					FLUID PROPER	RTIES
					Visc @ 40°C	cSt
Dec28/20	Nov25/21	Sep 29/22	Apr9/23	Aug7/23	SAMPLE IMAGES	
Number	W	Sec. 1		A	Color	
h		$\overline{}$			Bottom	



history1

history1

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

history1

NEG

NEG

66.4

0.40

history2

history2

0.41

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

history2

NEG

NEG

67.2

