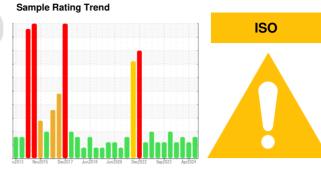


OIL ANALYSIS REPORT

412 Machine Id **71 BANBURY MOTOR**

Inboard Journal Bearing

ESSO NUTO H ISO 68 (1 QTS)



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend you service the filters on this component. 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.

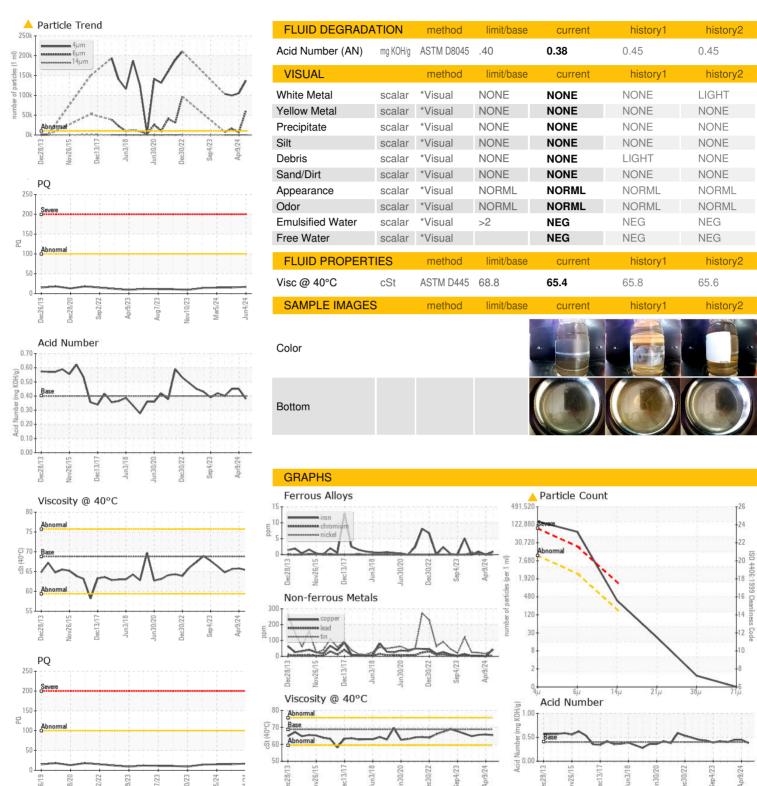
Fluid Condition

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

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0912078	WC0912098	WC0479426
Sample Date		Client Info		04 Jun 2024	09 Apr 2024	05 Mar 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	624	400
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
CONTAMINATION	٧	method	limit/base	current	history1	history2
Water		WC Method	>2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		17	15	15
Iron	ppm	ASTM D5185m	>60	<1	0	<1
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>4	0	0	1
Lead	ppm	ASTM D5185m	>250	5	<1	2
Copper	ppm	ASTM D5185m	>125	43	0	3
Tin	ppm	ASTM D5185m	>80	38	16	23
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	history1	history2
Boron Barium	ppm ppm					
Boron Barium Molybdenum	• •	ASTM D5185m ASTM D5185m ASTM D5185m	0	0 0 2	0 0 0	0
Boron Barium Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 0 2 0	0 0 0	0 0 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 0 2 0 <1	0 0 0 0	0 0 0 0
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 5 50	0 0 2 0 <1 51	0 0 0 0 1 51	0 0 0 0 2 43
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 5 50 330	0 0 2 0 <1 51 311	0 0 0 0 1 51 342	0 0 0 0 2 43 276
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 5 50 330 420	0 0 2 0 <1 51 311 392	0 0 0 0 1 51 342 412	0 0 0 0 2 43 276 349
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 5 50 330 420 3100	0 0 2 0 <1 51 311	0 0 0 0 1 51 342 412 3510	0 0 0 0 2 43 276 349 2579
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 5 50 330 420	0 0 2 0 <1 51 311 392	0 0 0 0 1 51 342 412	0 0 0 0 2 43 276 349
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 5 50 330 420 3100	0 0 2 0 <1 51 311 392 4667 current	0 0 0 0 1 51 342 412 3510 history1	0 0 0 0 2 43 276 349 2579 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 5 50 330 420 3100 limit/base >50	0 0 2 0 <1 51 311 392 4667 current 2	0 0 0 0 1 51 342 412 3510 history1 4	0 0 0 0 2 43 276 349 2579 history2 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 5 50 330 420 3100 limit/base >50	0 0 2 0 <1 51 311 392 4667 current	0 0 0 0 1 51 342 412 3510 history1	0 0 0 0 2 43 276 349 2579 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 5 50 330 420 3100 limit/base >50	0 0 2 0 <1 51 311 392 4667 current 2	0 0 0 0 1 51 342 412 3510 history1 4	0 0 0 0 2 43 276 349 2579 history2 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m	0 0 0 5 50 330 420 3100 limit/base >50 limit/base >10000	0 0 2 0 <1 51 311 392 4667 current 2 2 0 current ▲ 137285	0 0 0 0 1 51 342 412 3510 history1 4 0 0	0 0 0 0 2 43 276 349 2579 history2 2 1 <1 history2 ▲ 99601
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m	0 0 0 5 50 330 420 3100 limit/base >50 >20 limit/base >10000 >2500	0 0 2 0 <1 51 311 392 4667 current 2 2 0 current ▲ 137285 ▲ 61427	0 0 0 1 51 342 412 3510 history1 4 0 0 history1 ▲ 105210 ▲ 6700	0 0 0 0 2 43 276 349 2579 history2 2 1 <1 history2 ▲ 99601 ▲ 15979
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D7647 ASTM D7647	0 0 0 5 50 330 420 3100 limit/base >50 >20 limit/base >10000 >2500 >160	0 0 2 0 <1 51 311 392 4667 current 2 2 2 0 current ▲ 137285 ▲ 61427 ▲ 318	0 0 0 0 1 51 342 412 3510 history1 4 0 0 0 history1 ▲ 105210 ▲ 6700 81	0 0 0 0 2 43 276 349 2579 history2 2 1 <1 history2 △ 99601 △ 15979 △ 249
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m METHOD ASTM D5185m ASTM D5185m METHOD ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	0 0 0 5 50 330 420 3100 limit/base >50 >20 limit/base >10000 >2500 >160 >40	0 0 2 0 <1 51 311 392 4667	0 0 0 0 1 51 342 412 3510 history1 4 0 0 0 history1 △ 105210 △ 6700 81 12	0 0 0 0 2 43 276 349 2579 history2 2 1 <1 history2 ▲ 99601 ▲ 15979 ▲ 249 40
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 0 0 5 50 330 420 3100 limit/base >50 >20 limit/base >10000 >2500 >160 >40 >10	0 0 2 0 <1 51 311 392 4667	0 0 0 1 51 342 412 3510 history1 4 0 0 history1 ▲ 105210 ▲ 6700 81 12 1	0 0 0 0 2 43 276 349 2579 history2 2 1 <1 history2 △ 99601 △ 15979 △ 249 40 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m METHOD ASTM D5185m ASTM D5185m METHOD ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	0 0 0 5 50 330 420 3100 limit/base >50 >20 limit/base >10000 >2500 >160 >40 >10	0 0 2 0 <1 51 311 392 4667	0 0 0 0 1 51 342 412 3510 history1 4 0 0 0 history1 △ 105210 △ 6700 81 12	0 0 0 0 2 43 276 349 2579 history2 2 1 <1 history2 ▲ 99601 ▲ 15979 ▲ 249 40



OIL ANALYSIS REPORT







Certificate 12367

Laboratory Sample No.

: WC0912078 Lab Number : 06206376 Unique Number : 11073837

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Received : 11 Jun 2024 **Tested** Diagnosed

: 13 Jun 2024 : 13 Jun 2024 - Don Baldridge Test Package: IND 2 (Additional Tests: PQ, PrtCount)

4600 NW 2ND AVE DES MOINES, IA US 50313 Contact: SCOTT CARTER

BRIDGESTONE FIRESTONE - DES MOINES

CarterScottA@FirestoneAg.com

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)

Report Id: BRIDES [WUSCAR] 06206376 (Generated: 06/13/2024 12:57:16) Rev: 1

Contact/Location: SCOTT CARTER - BRIDES

T: x:

F: x: