

PROBLEM SUMMARY

BHS BHS DOUBLE BACKER MAIN DRIVE GEARBOX (S/N 3800118)

Component Gearbox

Fluid

MOBIL MOBILGEAR 600 XP ISO 150 (60 LTR)







RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS						
Sample Status				ABNORMAL	NORMAL	NORMAL
Visc @ 40°C	cSt	ASTM D7279(m)	150	<u> </u>	152	127
Visc @ 100°C	cSt	ASTM D7279(m)	14.7	18.4		

Customer Id: ATL195BRA Sample No.: WC0347220 Lab Number: 02578550 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Kevin Marson +1 (289)291-4644 x4644 Kevin.Marson@wearcheck.com

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 <u>gloria.gonzalez@wearcheck.com</u>

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

09 Jan 2021 Diag: Wes Davis



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

02 Nov 2019 Diag: Kevin Marson



Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

22 Sep 2018 Diag: Bill Quesnel

ADDITIVES







view report

Report Id: ATL195BRA [WCAMIS] 02578550 (Generated: 08/28/2023 15:04:12) Rev: 1



OIL ANALYSIS REPORT

BHS BHS DOUBLE BACKER MAIN DRIVE GEARBOX (S/N 3800118)

Gearbox Fluid

MOBIL MOBILGEAR 600 XP ISO 150 (60 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

Viscosity of sample indicates oil is within ISO 220 range, advise investigate. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0347220	WC0347214	WC0347215
Sample Date		Client Info		12 Nov 2022	09 Jan 2021	02 Nov 2019
Machine Age	mths	Client Info		0	14	0
Oil Age	mths	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>200	9	6	15
Chromium	ppm	ASTM D5185(m)	>15	0	0	<1
Nickel	ppm	ASTM D5185(m)	>15	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>25	<1	0	0
Lead	ppm	ASTM D5185(m)	>100	0	<1	0
Copper	ppm	ASTM D5185(m)	>200	<1	0	<1
Tin	ppm	ASTM D5185(m)	>25	0	0	0
Antimony	ppm	ASTM D5185(m)	>5	0	<1	<1
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
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current 10	<mark>history1</mark> 19	history2 13
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185(m) ASTM D5185(m)	limit/base	current 10 0	history1 19 0	history2 13 <1
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current 10 0 0	history1 19 0 0	history2 13 <1 0
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current 10 0 0 0	history1 19 0 0 <1	history2 13 <1 0 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	methodASTM D5185(m)ASTM D5185(m)ASTM D5185(m)ASTM D5185(m)ASTM D5185(m)	limit/base	current 10 0 0 0 1	history1 19 0 0 <1 <1	history2 13 <1 0 <1 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	methodASTM D5185(m)ASTM D5185(m)ASTM D5185(m)ASTM D5185(m)ASTM D5185(m)ASTM D5185(m)	limit/base	current 10 0 0 0 1 2	history1 19 0 0 <1 <1 2	history2 13 <1 0 <1 <1 13
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current 10 0 0 0 1 2 338	history1 19 0 0 <1 <1 2 315	history2 13 <1 0 <1 <1 <1 18 340
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current 10 0 0 11 2 338 21	history1 19 0 0 <1 <1 2 315 11	history2 13 <1 0 <1 <1 340 105
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current 10 0 0 1 2 338 21 13812	history1 19 0 0 <1 <1 <1 2 315 11 14945	history2 13 <1 0 <1 <1 <1 18 340 105 9867
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current 10 0 0 1 2 338 21 13812 <1	history1 19 0	history2 13 <1 0 <1 18 340 105 9867 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	current 10 0 0 0 1 2 338 21 13812 <1 current	history1 19 0 <1 <1 2 315 11 14945 <1 history1	history2 13 <1 0 <1 <1 340 105 9867 <1 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base	current 10 0 0 0 1 2 338 21 13812 <1 current	history1 19 0 2 315 11 14945 <1 history1	history2 13 <1 0 <1 18 340 105 9867 <1 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base	current 10 0 0 0 1 2 338 21 13812 <1 current <1 <1	history1 19 0 0 <1 2 315 11 14945 <1 history1 1 1 1 1 1 1 <1	history2 13 <1 0 <1 18 340 105 9867 <1 history2 2 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base	current 10 0 0 0 1 2 338 21 13812 <1 current <1 <1 0	history1 19 0 0 <1 2 315 11 14945 <1 history1 1 <1 <1 <1 <1 <1 <1 <1 <1 <1	history2 13 <1 0 <1 <1 340 105 9867 <1 history2 2 0 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base	current 10 0 0 1 2 338 21 13812 <1 current <1 0 0 current <1 0 current	history1 19 0 <1 <1 2 315 11 14945 <1 history1 1 <1 +1 +1 +1 +1 +1 +1 +1 +1 +1 +1 <1 +1 <1 history1	history2 13 <1 0 <1 18 340 105 9867 <1 history2 2 0 <1 history2 2 0 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	limit/base	current 10 0 0 1 2 338 21 13812 <1 current <1 <1 0 current 0 current 0 current 0 current 0 current 0 current 0	history1 19 0 -1 -1 2 315 11 14945 <1 history1 1 <1 +istory1 1 <1 +istory1 1 <1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	history2 13 <1 0 <1 18 340 105 9867 <1 history2 2 0 <1 history2 2 0 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m)	limit/base	current 10 0 0 0 1 2 338 21 13812 <1 current <1 <1 0 current 0 3.4	history1 19 0 <1 <1 2 315 11 14945 <1 history1 1 <1 history1 1 <1	history2 13 <1 0 <1 <1 340 105 9867 <1 history2 2 0 <1 history2 2 0 <1



OIL ANALYSIS REPORT









Mav19/18

Sen22/18

0

5

nr75/1

Dec 29/15

lec3/1

FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	5498		
Particles >6µm		ASTM D7647	>5000	317		
Particles >14µm		ASTM D7647	>640	12		
Particles >21µm		ASTM D7647	>160	4		
Particles >38µm		ASTM D7647	>40	2		
Particles >71µm		ASTM D7647	>10	0		
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/15/11		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*		4.9		
Acid Number (AN)	mg KOH/g	ASTM D974*		0.77	0.69	0.589
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	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*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	150	A 217	152	127
Visc @ 100°C	cSt	ASTM D7279(m)	14.7	<u> </u>		
Viscosity Index (VI)	Scale	ASTM D2270*	97	93		
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Color						
						(ATA)

Bottom

Nov12/22

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 ATLANTIC PACKAGING PRODUCTS LTD. Laboratory CALA Sample No. : WC0347220 Received : 25 Aug 2023 195 WALKER DRIVE Lab Number : 02578550 Diagnosed : 28 Aug 2023 BRAMPTON, ON ISO 17025:2017 Accredited Unique Number : 5631610 Diagnostician : Kevin Marson CA L6T 3Z9 Laboratory Test Package : IND 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, TAN Man, VI) Contact: Dave Dunlop To discuss this sample report, contact Customer Service at 1-800-268-2131. dave_dunlop@atlantic.ca Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: Validity of results and interpretation are based on the sample and information as supplied. F: (905)789-4832

Nov2/19

an 9/21