

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

[] 10057684 10057684 - TANK 44 Component

Gearbox

220 BLUE SQUARE (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

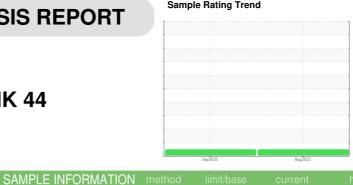
All component wear rates are normal.

Contamination

There is no indication of any contamination in the

Fluid Condition

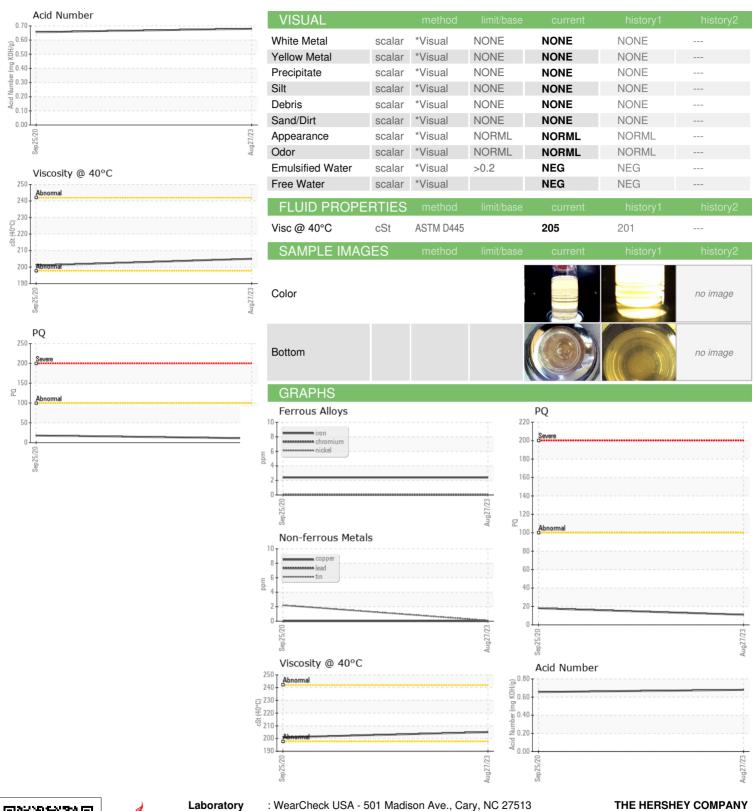
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



Sample Number Client Info PCA0093722 PCA0020727	O/ IIVII EE II II OI II	WI/ THOI	motinoa	mini bacc	Garroni	111010131	111010172
Machine Age hrs Client Info 1 0	Sample Number		Client Info		PCA0093722	PCA0020727	
Oil Age nrs Client Info 0 400	Sample Date		Client Info		27 Aug 2023	25 Sep 2020	
Oil Changed Sample Status Client Info N/A NORMAL NOR Changd NORMAL	Machine Age	hrs	Client Info		1	0	
Sample Status	Oil Age	hrs	Client Info		0	400	
WEAR METALS method limit/base current history1 history2 PQ ASTM D8184 11 18 Iron ppm ASTM D5185m >200 2 2 Chromium ppm ASTM D5185m >15 0 0 Nickel ppm ASTM D5185m 0 0 Titanium ppm ASTM D5185m 0 0 Silver ppm ASTM D5185m >25 <1 1 Aluminum ppm ASTM D5185m >25 <1 1 Aluminum ppm ASTM D5185m >20 0 0 Aluminum ppm ASTM D5185m >20 0 0 Lead ppm ASTM D5185m >20 0 0 Antimony ppm ASTM D5185m >20 0 0 Vanadium	Oil Changed		Client Info		N/A	Not Changd	
PQ	Sample Status				NORMAL	NORMAL	
Iron ppm ASTM D5185m >200 2 2 Chromium ppm ASTM D5185m >15 0 0 Nickel ppm ASTM D5185m 0 0 Titanium ppm ASTM D5185m 0 0 Silver ppm ASTM D5185m 0 0 Aluminum ppm ASTM D5185m >25 <1 1 Lead ppm ASTM D5185m >100 0 0 Copper ppm ASTM D5185m >200 0 0 Tin ppm ASTM D5185m >20 0 0 Antimony ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m	WEAR METAL	S	method	limit/base	current	history1	history2
Chromium ppm ASTM D5185m >15 0 0 Nickel ppm ASTM D5185m 0 0 Titanium ppm ASTM D5185m 0 0 Silver ppm ASTM D5185m 0 0 Aluminum ppm ASTM D5185m >25 <1 1 Aluminum ppm ASTM D5185m >100 0 0 Lead ppm ASTM D5185m >100 0 0 Copper ppm ASTM D5185m >200 0 0 Antimony ppm ASTM D5185m >5 0 Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D	PQ		ASTM D8184		11	18	
Nickel	Iron	ppm	ASTM D5185m	>200	2	2	
Titanium ppm ASTM D5185m 0 0 Silver ppm ASTM D5185m 0 0 Aluminum ppm ASTM D5185m >25 <1	Chromium	ppm	ASTM D5185m	>15	0	0	
Silver ppm ASTM D5185m 0 0 Aluminum ppm ASTM D5185m >25 <1 1 Lead ppm ASTM D5185m >100 0 0 Copper ppm ASTM D5185m >200 0 0 Tin ppm ASTM D5185m >25 <1 2 Antimony ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 0 <1 Molybdenum ppm ASTM D5185m 0	Nickel	ppm	ASTM D5185m	>15	0	0	
Aluminum ppm ASTM D5185m >25 <1	Titanium	ppm	ASTM D5185m		0	0	
Lead ppm ASTM D5185m >100 0 Copper ppm ASTM D5185m >200 0 0 Tin ppm ASTM D5185m >25 <1 2 Antimony ppm ASTM D5185m 0 0 Antimony ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 Boron ppm ASTM D5185m 2 0 Barium ppm ASTM D5185m 0 <1 Molybdenum ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 534 576 <t< th=""><th>Silver</th><th>ppm</th><th>ASTM D5185m</th><th></th><th>0</th><th>0</th><th></th></t<>	Silver	ppm	ASTM D5185m		0	0	
Copper ppm ASTM D5185m >200 0 0 Tin ppm ASTM D5185m >25 <1 2 Antimony ppm ASTM D5185m >5 0 Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 Boron ppm ASTM D5185m 2 0 Barium ppm ASTM D5185m 0 <1 Molybdenum ppm ASTM D5185m 0 <1 Magnesium ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 15 Phosphorus ppm ASTM D5185m 534 576 Zinc ppm ASTM D5185m 590 417<	Aluminum	ppm	ASTM D5185m	>25	<1	1	
Tin ppm ASTM D5185m >25 <1	Lead	ppm	ASTM D5185m	>100	0	0	
Antimony ppm ASTM D5185m >5 0 Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 2 0 Molybdenum ppm ASTM D5185m 0 <1	Copper	ppm	ASTM D5185m	>200	0	0	
Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 2 0 Molybdenum ppm ASTM D5185m 0 <1	Tin	ppm	ASTM D5185m	>25	<1	2	
Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 2 0 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 15 Calcium ppm ASTM D5185m 534 576 Phosphorus ppm ASTM D5185m 4 6 Zinc ppm ASTM D5185m 590 417 Sulfur ppm ASTM D5185m 590 44 Sodium ppm ASTM D5185m 0 0 Potassium ppm ASTM D5185m >20 <1 0 <	Antimony	ppm	ASTM D5185m	>5		0	
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 2 0 Molybdenum ppm ASTM D5185m 0 <1 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 15 Calcium ppm ASTM D5185m 534 576 Phosphorus ppm ASTM D5185m 534 576 Zinc ppm ASTM D5185m 590 417 Sulfur ppm ASTM D5185m 590 417 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 <1 0 FLUID DEGRADATION method limit/base current <th>Vanadium</th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th>0</th> <th></th> <th></th>	Vanadium	ppm	ASTM D5185m		0		
Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 2 0 Molybdenum ppm ASTM D5185m 0 <1 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 15 Phosphorus ppm ASTM D5185m 534 576 Zinc ppm ASTM D5185m 4 6 Sulfur ppm ASTM D5185m 590 417 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 32 44 Sodium ppm ASTM D5185m >20 <1 0 FLUID DEGRADATION method limit/base current	Cadmium	ppm	ASTM D5185m		0	0	
Barium ppm ASTM D5185m 2 0 Molybdenum ppm ASTM D5185m 0 <1 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 15 Calcium ppm ASTM D5185m 534 576 Phosphorus ppm ASTM D5185m 4 6 Zinc ppm ASTM D5185m 590 417 Sulfur ppm ASTM D5185m >50 32 44 Sodium ppm ASTM D5185m >20 <1 0 FLUID DEGRADATION method limit/base current history1 history2	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m		0	0	
Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 15 Phosphorus ppm ASTM D5185m 534 576 Zinc ppm ASTM D5185m 4 6 Sulfur ppm ASTM D5185m 590 417 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 32 44 Sodium ppm ASTM D5185m >20 <1 0 FLUID DEGRADATION method limit/base current history1 history2	Barium	ppm	ASTM D5185m		2	0	
Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 15 Phosphorus ppm ASTM D5185m 534 576 Zinc ppm ASTM D5185m 4 6 Sulfur ppm ASTM D5185m 590 417 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 32 44 Sodium ppm ASTM D5185m 0 0 Potassium ppm ASTM D5185m >20 <1 0 FLUID DEGRADATION method limit/base current history1 history2	Molybdenum	ppm	ASTM D5185m		0	<1	
Calcium ppm ASTM D5185m 0 15 Phosphorus ppm ASTM D5185m 534 576 Zinc ppm ASTM D5185m 4 6 Sulfur ppm ASTM D5185m 590 417 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 32 44 Sodium ppm ASTM D5185m 0 0 Potassium ppm ASTM D5185m >20 <1 0 FLUID DEGRADATION method limit/base current history1 history2	Manganese	ppm	ASTM D5185m		0	0	
Phosphorus ppm ASTM D5185m 534 576 Zinc ppm ASTM D5185m 4 6 Sulfur ppm ASTM D5185m 590 417 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 32 44 Sodium ppm ASTM D5185m 0 0 Potassium ppm ASTM D5185m >20 <1	Magnesium	ppm	ASTM D5185m		0	0	
Zinc ppm ASTM D5185m 4 6 Sulfur ppm ASTM D5185m 590 417 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 32 44 Sodium ppm ASTM D5185m 0 0 Potassium ppm ASTM D5185m >20 <1	Calcium	ppm	ASTM D5185m		0	15	
Sulfur ppm ASTM D5185m 590 417 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 32 44 Sodium ppm ASTM D5185m 0 0 Potassium ppm ASTM D5185m >20 <1 0 FLUID DEGRADATION method limit/base current history1 history2	Phosphorus	ppm	ASTM D5185m		534	576	
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 32 44 Sodium ppm ASTM D5185m 0 0 Potassium ppm ASTM D5185m >20 <1 0 FLUID DEGRADATION method limit/base current history1 history2	Zinc	ppm	ASTM D5185m		4	6	
Silicon ppm ASTM D5185m >50 32 44 Sodium ppm ASTM D5185m 0 0 Potassium ppm ASTM D5185m >20 <1	Sulfur	ppm	ASTM D5185m		590	417	
Sodium ppm ASTM D5185m 0 0 Potassium ppm ASTM D5185m >20 <1 0 FLUID DEGRADATION method limit/base current history1 history2	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1 0 FLUID DEGRADATION method limit/base current history1 history2	Silicon	ppm	ASTM D5185m	>50	32	44	
FLUID DEGRADATION method limit/base current history1 history2	Sodium	ppm	ASTM D5185m		0	0	
	Potassium	ppm	ASTM D5185m	>20	<1	0	
Acid Number (AN) mg KOH/g ASTM D8045 0.68 0.656	FLUID DEGRA	OITAC	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045		0.68	0.656	



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

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

: PCA0093722 : 05944717 : 10635329 Test Package : IND 2 (Additional Tests: PQ)

Received : 07 Sep 2023 Diagnosed Diagnostician : Wes Davis

: 08 Sep 2023

Contact: CLINTON ZOHNER

clintzohner@hersheys.com T: (717)374-4846

WEST HERSHEY - TECHNICAL ASSURANCE, 1033 OLDE WEST CHOCOLATE

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)

Contact/Location: CLINTON ZOHNER - HERHER

HERSHEY, PA

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US 17033