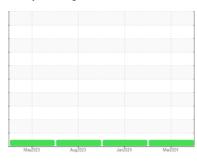


# **OIL ANALYSIS REPORT**

Sample Rating Trend







Machine Id

# **TOWER 17P**

Right Gearbox

SHELL MORLINA S4 B 220 (22 GAL)

## Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

## Contamination

There is no indication of any contamination in the

## **Fluid Condition**

The condition of the oil is acceptable for the time in service.

		May202	3 Aug2023	Jan2024 M		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		TO60002393	TO60001409	TO60001137
Sample Date		Client Info		25 Mar 2024	04 Jan 2024	03 Aug 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		16	12	14
Iron	ppm	ASTM D5185m	>200	39	30	0
Chromium	ppm	ASTM D5185m	>15	<1	0	0
Nickel	ppm	ASTM D5185m	>15	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	0	0
Lead	ppm	ASTM D5185m	>100	0	0	0
Copper	ppm	ASTM D5185m	>200	2	<1	<1
Tin	ppm	ASTM D5185m	>25	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
				•	V	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm		limit/base	-	-	
	ppm	method	limit/base	current	history1	history2
Boron		method ASTM D5185m	limit/base	current 1	history1	history2
Boron Barium	ppm	method ASTM D5185m ASTM D5185m	limit/base	current 1 0	history1 3 0	history2 0 0
Boron Barium Molybdenum	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 1 0 0	history1 3 0 0	history2 0 0 0
Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current  1 0 0 1 <1 <1 5	history1 3 0 0 2	history2 0 0 0 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current  1 0 0 1 <1 5 200	history1 3 0 0 2 0	history2 0 0 0 0 0 0 3 0 303
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current  1 0 0 1 <1 <1 5	history1  3 0 0 2 0 253	history2 0 0 0 0 0 3 0 303 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base	current  1 0 0 1 <1 5 200	history1  3 0 0 2 0 2 53	history2 0 0 0 0 0 0 3 0 303
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current  1 0 0 1 <1 5 200 4 670 current	history1  3 0 0 2 0 253	history2 0 0 0 0 0 3 0 303 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base	current  1 0 0 1 <1 5 200 4 670 current 8	history1  3 0 0 2 0 2 53 0 800	history2  0  0  0  0  3  0  303  5  756  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current  1 0 0 1 <1 5 200 4 670 current	history1  3  0  0  2  0  0  253  0  800  history1  7	history2  0 0 0 0 3 0 303 5 756 history2 1 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base	current  1 0 0 1 <1 5 200 4 670 current 8	history1 3 0 0 0 2 0 0 253 0 800 history1 7	history2  0 0 0 0 3 0 303 5 756 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base >50 >20 limit/base	current  1 0 0 1 <1 5 200 4 670 current 8 2 <1	history1  3 0 0 0 2 0 0 253 0 800 history1 7 1 0	history2  0  0  0  0  3  0  303  5  756  history2  1  <1  2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method  *Visual	limit/base >50 >20 limit/base NONE	current  1 0 0 1 <1 5 200 4 670 current 8 2 <1 current NONE	history1 3 0 0 2 0 253 0 800 history1 7 1 0 history1 NONE	history2  0  0  0  0  3  0  303  5  756  history2  1  <1  2  history2  NONE
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base >50 >20 limit/base NONE NONE	current  1 0 0 1 <1 5 200 4 670 current 8 2 <1	history1  3 0 0 0 2 0 0 253 0 800 history1 7 1 0	history2  0  0  0  0  3  0  303  5  756  history2  1  <1  2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method  *Visual	limit/base >50 >20 limit/base NONE	current  1 0 0 1 <1 5 200 4 670 current 8 2 <1 current NONE NONE NONE	history1 3 0 0 2 0 253 0 800 history1 7 1 0 history1 NONE	history2  0  0  0  0  3  0  303  5  756  history2  1  <1  2  history2  NONE
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method  ASTM D5185m ASTM D5185m  method  *Visual	limit/base >50 >20 limit/base NONE NONE	current  1 0 0 1 <1 5 200 4 670 current 8 2 <1 current NONE NONE	history1 3 0 0 2 0 2 53 0 800 history1 7 1 0 history1 NONE NONE	history2  0  0  0  0  3  0  303  5  756  history2  1  <1  2  NONE  NONE
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method  ASTM D5185m ASTM D5185m  *Visual  *Visual	limit/base >50 >20 limit/base NONE NONE NONE	Current   1	history1  3 0 0 0 2 0 0 253 0 800 history1 7 1 0 history1 NONE NONE	history2  0  0  0  0  3  0  303  5  756  history2  1  <1  2  NONE  NONE  NONE
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method ASTM D5185m ASTM D5185m  *Visual *Visual *Visual *Visual	limit/base >50 >20 limit/base NONE NONE NONE NONE	current  1 0 0 1 <1 5 200 4 670 current 8 2 <1 current NONE NONE NONE	history1  3 0 0 0 2 0 0 253 0 800 history1 7 1 0 history1 NONE NONE NONE	history2  0  0  0  0  3  0  303  5  756  history2  1  <1  2  NONE  NONE  NONE  NONE

**NORML** 

NEG

NEG

NORML

>0.2

scalar \*Visual

scalar \*Visual

\*Visual

scalar

NORML

NEG

Odor

**Emulsified Water** 

NORML

NEG

mittent By: CLAY OSTERHOUT



## **OIL ANALYSIS REPORT**







Certificate 12367

Laboratory Sample No.

Lab Number : 06133678

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : TO60002393

Unique Number : 10953143

Received : 29 Mar 2024 **Tested** : 05 Apr 2024 Diagnosed

: 05 Apr 2024 - Jonathan Hester

Test Package : IND 2 (Additional Tests: KV100, PQ, VI) 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.

US 72756 Contact: CLAY OSTERHOUT clay.osterhout@clorox.com

**GLAD MANUFACTURING** 

1700 N 13TH ST

ROGERS, AR

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) Report Id: GLAROG [WUSCAR] 06133678 (Generated: 04/05/2024 23:02:04) Rev: 1

Submitted By: CLAY OSTERHOUT

T:

F: