

### **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# **TOWER 9S (S/N 002141078-1-1)**

Component Left Gearbox Fluid

SHELL MORLINA S4 B 220 (18 GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

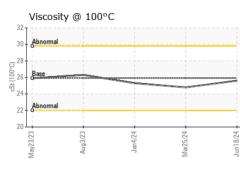
#### Fluid Condition

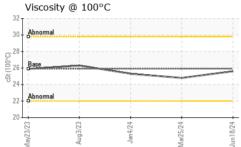
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

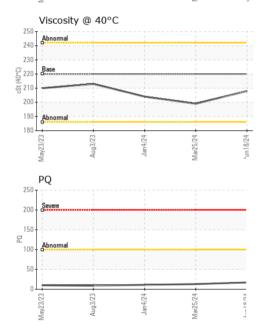
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		TO60002761	TO60002416	TO60001375
Sample Date		Client Info		18 Jun 2024	25 Mar 2024	04 Jan 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	N	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		17	13	11
Iron	ppm	ASTM D5185m	>200	0	3	0
Chromium	ppm	ASTM D5185m	>15	0	0	0
Nickel	ppm	ASTM D5185m	>15	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	0	0
Lead	ppm	ASTM D5185m	>100	0	0	0
Copper	ppm	ASTM D5185m	>200	1	2	2
Tin	ppm	ASTM D5185m	>25	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	3	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		0	0	0
Calcium	ppm	ASTM D5185m		0	<1	0
Phosphorus	ppm	ASTM D5185m		298	284	276
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m		786	1627	592
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	2	1	2
Sodium	ppm	ASTM D5185m		<1	0	0
Potassium	ppm	ASTM D5185m	>20	2	0	0
FLUID DEGRADA	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045		0.88		



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VISUAL		method	limit/base	current	history1	history2
VIGUAL		methou	iiiiii/base		· · · · · ·	
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	LIGHT
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 D445	220	208	199	204
Visc @ 100°C	cSt	ASTM D445	25.9	25.6	24.8	25.3
Viscosity Index (VI)	Scale	ASTM D2270	149	155	155	155
<b>,</b> ( )		NOTIN DELIV	-	100	100	100
SAMPLE IMAGES		method	limit/base	current	history1	history2
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Color				a		

Bottom

Mav23/73

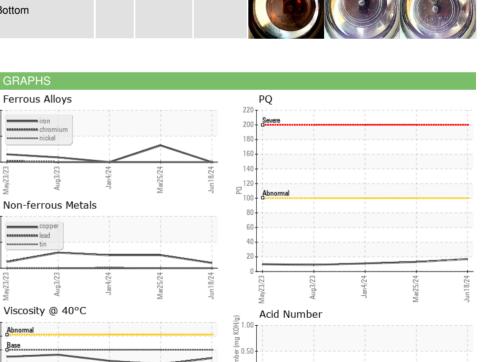
260

() 240 () 0 () 220 () 220 () 200

180

Ba

Mav23/73



N PCIO

120/2/173

Jun18/24

Aug3/23

Jan4/24

**GLAD MANUFACTURING** Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : TO60002761 Received : 19 Jun 2024 1700 N 13TH ST Lab Number : 06214720 Tested : 20 Jun 2024 ROGERS, AR Unique Number : 11087584 Diagnosed : 20 Jun 2024 - Wes Davis US 72756 Test Package : IND 2 (Additional Tests: KV100, PQ, VI) Contact: CLAY OSTERHOUT Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. clay.osterhout@clorox.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: F:

Jan4/24

Mar25/24

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Aug3/23

Report Id: GLAROG [WUSCAR] 06214720 (Generated: 06/23/2024 02:46:56) Rev: 1

Submitted By: CLAY OSTERHOUT Page 2 of 2

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Mar25/24