

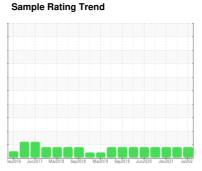
OIL ANALYSIS REPORT

RING CONTAINER Machine Id EXTRUDER K - MAIN PLANT

Component

Hydraulic Power Pack

SHELL TELLUS 46 (--- GAL)





DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

The copper level is abnormal. All other component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

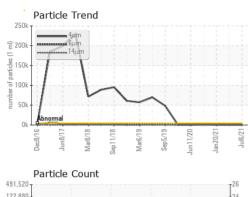
Fluid Condition

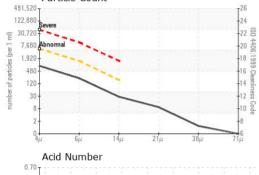
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

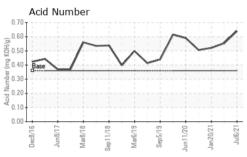
		Jec2016 Jun2	017 Mar2018 Sep2018	Mar2019 Sep2019 Jun2020 Jan	2021 Jul202	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0596741	WC0564941	WC0496715
Sample Date		Client Info		06 Jul 2021	21 Apr 2021	20 Jan 2021
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	15	15	13
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>20	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>20	0	0	2
Lead	ppm	ASTM D5185m	>20	<1	<1	2
Copper	ppm	ASTM D5185m	>20	<u>^</u> 23	<u>^</u> 24	<u>22</u>
Tin	ppm	ASTM D5185m	>20	<1	0	0
Antimony	ppm	ASTM D5185m		0	0	4
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	<1
	1-1-	AO I WI DO I OO III		U	0	< 1
ADDITIVES	l- l-	method	limit/base	current	history1	history2
ADDITIVES Boron	ppm		limit/base 0.0	-		
		method		current	history1	history2
Boron	ppm	method ASTM D5185m	0.0	current 2	history1	history2
Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	0.0	current 2 0	history1 2 0	history2 0 0
Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	0.0	current 2 0 127	history1 2 0 120	history2 0 0 112
Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0.0 0 0	current 2 0 127 <1	history1 2 0 120 <1	history2 0 0 112 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0.0	current 2 0 127 <1 <1	history1 2 0 120 <1 <1	history2 0 0 112 0 <1
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0.0 0 0 11 35	current 2 0 127 <1 <1 54	history1 2 0 120 <1 <1 <1 51	history2 0 0 112 0 <1 51
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0.0 0 0 11 35 266	current 2 0 127 <1 <1 54 436	history1 2 0 120 <1 <1 51 410	history2 0 0 112 0 <1 51 419
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0.0 0 0 11 35 266 276	current 2 0 127 <1 <1 54 436 383	history1 2 0 120 <1 <1 <1 51 410 383	history2 0 0 112 0 <1 51 419 381
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0.0 0 0 11 35 266 276 1847	current 2 0 127 <1 <1 54 436 383 2568	history1 2 0 120 <1 <1 51 410 383 2557	history2 0 0 112 0 <1 51 419 381 2372
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0.0 0 0 11 35 266 276 1847 limit/base	current 2 0 127 <1 <1 54 436 383 2568 current	history1 2 0 120 <1 <1 <1 51 410 383 2557 history1	history2 0 0 112 0 <1 51 419 381 2372 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0.0 0 0 11 35 266 276 1847 Iimit/base >15	current 2 0 127 <1 <1 54 436 383 2568 current 3	history1 2 0 120 <1 <1 <1 51 410 383 2557 history1 2	history2 0 0 112 0 <1 51 419 381 2372 history2 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0.0 0 0 11 35 266 276 1847 Iimit/base >15	current 2 0 127 <1 <1 54 436 383 2568 current 3 <1	history1 2 0 120 <1 <1 <1 51 410 383 2557 history1 2 0	history2 0 0 112 0 <1 51 419 381 2372 history2 2 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0.0 0 0 11 35 266 276 1847 limit/base >15 >20	current 2 0 127 <1 <1 54 436 383 2568 current 3 <1 0	history1 2 0 120 <1 <1 <1 51 410 383 2557 history1 2 0 0	history2 0 0 112 0 <1 51 419 381 2372 history2 2 <1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0.0 0 0 11 35 266 276 1847 limit/base >15	current 2 0 127 <1 <1 54 436 383 2568 current 3 <1 0 current	history1 2 0 120 <1 <1 <1 51 410 383 2557 history1 2 0 history1	history2 0 0 112 0 <1 51 419 381 2372 history2 2 <1 0 history2
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	method ASTM D5185m method ASTM D5185m	0.0 0 0 11 35 266 276 1847 limit/base >15	current 2 0 127 <1 <1 <1 54 436 383 2568 current 3 <1 0 current 755	history1 2 0 120 <1 <1 <1 51 410 383 2557 history1 2 0 0 history1 587	history2 0 0 112 0 <1 51 419 381 2372 history2 2 <1 0 history2 728
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	method ASTM D5185m method ASTM D5185m	0.0 0 0 111 35 266 276 1847 limit/base >15 >20 limit/base >5000 -1300 >160	current 2 0 127 <1 <1 <1 54 436 383 2568 current 3 <1 0 current 755 191	history1 2 0 120 <1 <1 <1 51 410 383 2557 history1 2 0 0 history1 587 139	history2 0 0 112 0 <1 51 419 381 2372 history2 2 <1 0 history2 728 130
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	method ASTM D5185m method ASTM D5185m ASTM D7647 ASTM D7647	0.0 0 0 111 35 266 276 1847 limit/base >15 >20 limit/base >5000 -1300 >160	current 2 0 127 <1 <1 <1 54 436 383 2568 current 3 <1 0 current 755 191 25	history1 2 0 120 <1 <1 <1 51 410 383 2557 history1 2 0 0 history1 587 139 9	history2 0 0 112 0 <1 51 419 381 2372 history2 2 <1 0 history2 728 130 14
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	method ASTM D5185m Method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	0.0 0 0 11 35 266 276 1847 limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	current 2 0 127 <1 <1 <1 54 436 383 2568 current 3 <1 0 current 755 191 25 8	history1 2 0 120 <1 <1 <1 51 410 383 2557 history1 2 0 0 history1 587 139 9 2	history2 0 0 112 0 <1 51 419 381 2372 history2 2 <1 0 history2 728 130 14 4

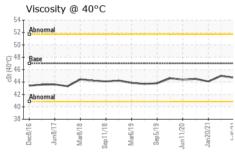


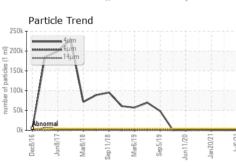
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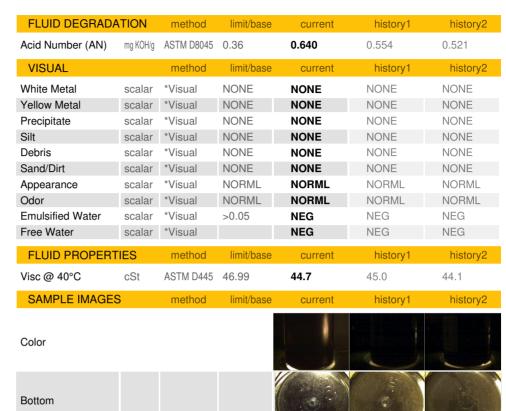


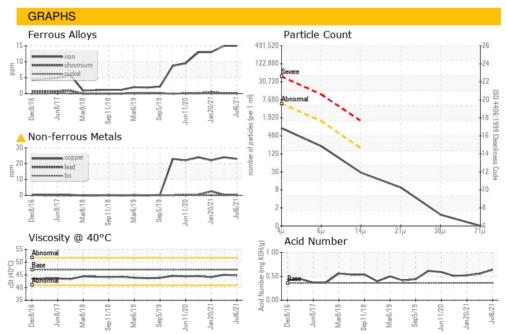














Certificate L2367

Laboratory Sample No. Lab Number Unique Number

: WC0596741

: 05298693 : 9577653 Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 09 Jul 2021

> **Tested** : 12 Jul 2021 Diagnosed : 12 Jul 2021 - Angela Borella

515 WILLOW SPRINGS LN YORK, PA US 17406

MOTOR TECHNOLOGY INC

Contact: Bill Trimmer

btrimmer@motortechnologyinc.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

T: (717)266-4045

* - 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)

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