Sample Rating Trend



PROBLEM SUMMARY

Machine Id **20901** Component **Diesel Engine** Fluid **SHELL ROTELLA T3 15W40 (--- LTR)**

COMPONENT CONDITION SUMMARY





▲ Viscosity @ 100°C 19 18-Abnormal 17 16 Base () 15 00114 . تق 13 Abnormal 12 11 10 9 Feb 8/24 Feb 8/24

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS								
Sample Status				SEVERE				
Fuel	%	ASTM D3524	>5	14.2				
Base Number (BN)	mg KOH/g	ASTM D2896	10.6	A 3.59				
Visc @ 100°C	cSt	ASTM D445	15.5	10.9				

Customer Id: SEAGUYOK Sample No.: WC0952249 Lab Number: 06206761 Test Package: IND 2



To manage this report scan the QR code

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To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED AC	TIONS			
Action	Status	Date	Done By	Description
Change Fluid			?	We recommend that you drain the oil from the component if this has not already been done.
Resample			?	We recommend an early resample to monitor this condition.
Check Fuel/injector System			?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT



Machine Id **20901** Component **Diesel Engine** Fluid **SHELL ROTELLA T3 15W40 (--- LTR)**

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is a high amount of fuel present in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN level is low. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0952249		
Sample Date		Client Info		08 Feb 2024		
Machine Age	hrs	Client Info		400		
Oil Age	hrs	Client Info		400		
Oil Changed		Client Info		N/A		
Sample Status				SEVERE		
			11 1. 0			
CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
		method		ourrent	motory	motoryz
Iron	ppm	ASTM D5185m	>100	28		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	<1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	39		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	1		
Tin	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		<1		
Cadmium ADDITIVES	ppm	ASTM D5185m method	limit/base	<1 current	 history1	history2
Cadmium ADDITIVES	ppm	ASTM D5185m method	limit/base	<1 current	history1	history2
Cadmium ADDITIVES Boron Barium	ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base	<1 current 7	 history1 	history2
Cadmium ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<1 current 7 0 10	 history1 	history2
Cadmium ADDITIVES Boron Barium Molybdenum Mangapage	ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 10 0 10	<1 current 7 0 10	 history1 	 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnaeium	ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 10 0 10	<1 <u>current</u> 7 0 10 <1 51	 history1 	 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calaium	ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 10 0 10 10 2000	<1 <u>current</u> 7 0 10 <1 51 1924	 history1 	 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phaceborus	ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 10 0 10 10 2600 1050	<1 <u>current</u> 7 0 10 <1 51 1834 660	 history1 	 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 10 0 10 10 2600 1050 1250	<1 7 0 10 <1 51 1834 660 240	 history1 	 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 10 0 10 10 2600 1050 1250 2000	<1 7 0 10 <1 51 1834 660 849 2265	 history1 	 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 10 0 10 10 2600 1050 1250 3900	<1 7 0 10 <1 51 1834 660 849 3365	 history1 -	 history2 -
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 10 0 10 10 2600 1050 1250 3900	<1 current 7 0 10 <1 51 1834 660 849 3365 current	history1	 history2 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm (ppm (ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 10 0 10 10 10 2600 1050 1250 3900 limit/base >25	<1 current 7 0 10 <1 51 1834 660 849 3365 current 6	history1	 history2 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 10 0 10 10 2600 1050 1250 3900 limit/base >25	<1 Current 7 0 10 <1 51 1834 660 849 3365 Current 6 <1	history1	history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm () ppm () ppm () ppm () ppm () ppm () ppm () ppm () ppm () ppm ()	ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base 10 10 10 2600 1050 1250 3900 limit/base >25 >20	<1 Current 7 0 10 <1 51 1834 660 849 3365 Current 6 <1 2	history1	history2 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m	limit/base 10 0 10 2600 1050 1250 3900 limit/base >25 >20 >5	<1 Current 7 0 10 <1 51 1834 660 849 3365 Current 6 <1 2 ↓ 14.2	history1	history2 history2 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base 10 0 10 2600 1050 1250 3900 limit/base >20 >5 limit/base	<1 Current 7 0 10 <1 51 1834 660 849 3365 Current 6 <1 2 14.2 Current	history1 history1 history1 history1	 history2 history2 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Sulfur Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base 10 0 10 10 2600 1250 3900 limit/base >25 20 >5 limit/base	<1 Current 7 0 10 <1 51 1834 660 849 3365 Current 6 <1 2 14.2 Current	history1	 history2 history2 history2 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m	limit/base 10 10 2600 1050 1250 3900 limit/base >20 >5 limit/base >3	<1 Current 7 0 10 <1 51 1834 660 849 3365 Current 6 <1 2 ▲14.2 Current 1.9 	history1	history2 history2 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Zinc Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m	limit/base 10 10 2600 1050 1250 3900 limit/base >25 >20 >3 limit/base >20 >20	<1 <1 current 7 0 10 <1 51 1834 660 849 3365 current 6 <1 2 14.2 current 1.9 11.8 20 	history1	history2 history2 history2 history2 history2 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM	imit/base 10 0 10 2600 10 2600 1050 1250 3900 imit/base >20 >5 imit/base >3 >20 >3 >20	<1 <1 Current 7 0 10 <1 51 1834 660 849 3365 Current 6 <1 2 14.2 Current 1.9 11.8 26.6 	history1	history2 history2 history2 history2 history2 -
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Solfur Sodium Potassium Fuel Soot % Nitration Sulfation FLUID DEGRADAA	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185	imit/base 10 0 10 10 2600 105 105 1250 3900 imit/base >20 >5 imit/base >3 >20 >30 imit/base >3 >20 >30	<1 <1 7 0 10 <1 51 1834 660 849 3365 Current 6 <1 2 14.2 Lurrent 1.9 11.8 26.6 	history1	history2 history2 history2 history2 history2 history2 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation Cxidation	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D7844	Imit/base 10 0 10 2600 1050 1250 3900 Imit/base >20 >3 >20 >30 Imit/base >30 Sale >20 >30 Sale >20 >30 Sale >20 >30	<1 <1 current 7 0 10 <1 51 1834 660 849 3365 current 6 <1 2 14.2 14.2 1.9 1.9 1.8 26.6 current 23.9 	history1	history2 history2 history2 history2 history2 history2



OIL ANALYSIS REPORT



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