

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id

CASE 120C OT-112 (S/N CPL202229) Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Metal levels are typical for a components first oil change.

Contamination

There is no indication of any contamination in the

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Client Info PCA0118123	AE 15W40 (GAL)			Apr2024		
Cample Date	SAMPLE INFO	RMATION	method	limit/base	current	history1	history2
Machine Age	Sample Number		Client Info		PCA0118123		
Dil Age	Sample Date		Client Info		10 Apr 2024		
Contained Client Info Changed Client Info Normal Contained Conta	Machine Age	hrs	Client Info		170		
NORMAL	Oil Age	hrs	Client Info		170		
CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0	Oil Changed		Client Info		Changed		
Water	Sample Status				NORMAL		
Water WC Method >0.2 NEG Glycol WC Method Imit/base current history1 history2 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 34 Chromium ppm ASTM D5185m >20 <1 Nickel ppm ASTM D5185m >4 0 Silver ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >20 7 Silver ppm ASTM D5185m >40 1 Silver ppm ASTM D5185m >40 1 Copper ppm ASTM D5185m >15 1 Tin ppm ASTM D5185m >15 1 <td>CONTAMINA</td> <td>TION</td> <td>method</td> <td>limit/base</td> <td>current</td> <td>history1</td> <td>history2</td>	CONTAMINA	TION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 34 Chromium ppm ASTM D5185m >20 <1	Water		WC Method	>0.2	NEG		
Chromium	Glycol		WC Method		NEG		
Chromium	WEAR META	LS	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>100	34		
Silver	Chromium	ppm	ASTM D5185m	>20	<1		
Silver	Nickel	ppm	ASTM D5185m	>4	0		
Aluminum	Titanium	ppm	ASTM D5185m		<1		
Lead	Silver	ppm	ASTM D5185m	>3	0		
Copper ppm ASTM D5185m >330 52 Tin ppm ASTM D5185m >15 1 Vanadium ppm ASTM D5185m <1	Aluminum	ppm	ASTM D5185m	>20	7		
Tin	Lead	ppm	ASTM D5185m	>40	1		
Vanadium ppm ASTM D5185m <1 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 250 5 Barium ppm ASTM D5185m 10 0 Molybdenum ppm ASTM D5185m 100 60 Manganese ppm ASTM D5185m 3 Magnesium ppm ASTM D5185m 3000 1017 Calcium ppm ASTM D5185m 3000 1017 Phosphorus ppm ASTM D5185m 1350 1134 Sulfur ppm ASTM D5185m 225 15 CONTAMINANTS method limit/base current history1 <	Copper	ppm	ASTM D5185m	>330	52		
ADDITIVES	Tin	ppm	ASTM D5185m	>15	1		
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 250 5 Barium ppm ASTM D5185m 10 0 Molybdenum ppm ASTM D5185m 100 60 Manganese ppm ASTM D5185m 450 889 Calcium ppm ASTM D5185m 3000 1017 Phosphorus ppm ASTM D5185m 1350 1134 Sulfur ppm ASTM D5185m 4250 3353 Sulfur ppm ASTM D5185m >25 15 Solicon ppm ASTM D5185m >25 15 Solicon ppm ASTM D5185m >25 15 Sodium ppm ASTM D5185m	Vanadium	ppm	ASTM D5185m		<1		
Boron ppm ASTM D5185m 250 5	Cadmium	ppm	ASTM D5185m		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 100 60 Manganese ppm ASTM D5185m 3 Magnesium ppm ASTM D5185m 450 889 Calcium ppm ASTM D5185m 3000 1017 Phosphorus ppm ASTM D5185m 1150 999 Zinc ppm ASTM D5185m 1350 1134 Sulfur ppm ASTM D5185m 4250 3353 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 15 Sodium ppm ASTM D5185m >158 5 Potassium ppm ASTM D5185m >20 3 Soot % *ASTM D7844 >3 0.1 <td>Boron</td> <td>ppm</td> <td>ASTM D5185m</td> <td>250</td> <td>5</td> <td></td> <td></td>	Boron	ppm	ASTM D5185m	250	5		
Manganese ppm ASTM D5185m 3 Calcium ppm ASTM D5185m 450 889 Calcium ppm ASTM D5185m 3000 1017 Phosphorus ppm ASTM D5185m 1150 999 Zinc ppm ASTM D5185m 1350 1134 Sulfur ppm ASTM D5185m 4250 3353 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 15 Sodium ppm ASTM D5185m >158 5 Potassium ppm ASTM D5185m >20 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20	Barium	ppm	ASTM D5185m	10	0		
Magnesium ppm ASTM D5185m 450 889 Calcium ppm ASTM D5185m 3000 1017 Phosphorus ppm ASTM D5185m 1150 999 Zinc ppm ASTM D5185m 1350 1134 Sulfur ppm ASTM D5185m 4250 3353 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 15 Sodium ppm ASTM D5185m >158 5 Potassium ppm ASTM D5185m >20 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Sulfation Abs/.1mm *ASTM D7415 <td>Molybdenum</td> <td>ppm</td> <td>ASTM D5185m</td> <td>100</td> <td>60</td> <td></td> <td></td>	Molybdenum	ppm	ASTM D5185m	100	60		
Calcium ppm ASTM D5185m 3000 1017 Phosphorus ppm ASTM D5185m 1150 999 Zinc ppm ASTM D5185m 1350 1134 Sulfur ppm ASTM D5185m 4250 3353 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 15 Sodium ppm ASTM D5185m >158 5 Potassium ppm ASTM D5185m >20 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7415 >30 18.6 FLUID DEGRADATION *ASTM D7414 <td< td=""><td>Manganese</td><td>ppm</td><td>ASTM D5185m</td><td></td><td>3</td><td></td><td></td></td<>	Manganese	ppm	ASTM D5185m		3		
Phosphorus ppm ASTM D5185m 1150 999 Zinc ppm ASTM D5185m 1350 1134 Sulfur ppm ASTM D5185m 4250 3353 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 15 Sodium ppm ASTM D5185m >158 5 Potassium ppm ASTM D5185m >20 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7414 >20 5.5 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 FLUID DEGRADATION *ASTM D7414	Magnesium	ppm	ASTM D5185m	450	889		
Zinc	Calcium	ppm	ASTM D5185m	3000	1017		
Sulfur ppm ASTM D5185m 4250 3353 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 15 Sodium ppm ASTM D5185m >158 5 Potassium ppm ASTM D5185m >20 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 5.5 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.9	Phosphorus	ppm	ASTM D5185m	1150	999		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 15 Sodium ppm ASTM D5185m >158 5 Potassium ppm ASTM D5185m >20 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 5.5 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.9	Zinc	ppm	ASTM D5185m	1350	1134		
Silicon ppm ASTM D5185m >25 15	Sulfur	ppm	ASTM D5185m	4250	3353		
Sodium	CONTAMINA	NTS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 5.5 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.9	Silicon	ppm	ASTM D5185m	>25	15		
INFRA-RED	Sodium	ppm	ASTM D5185m	>158	5		
Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 5.5 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.9	Potassium	ppm	ASTM D5185m	>20	3		
Nitration Abs/cm *ASTM D7624 >20 5.5 Sulfation Abs/.1mm *ASTM D7615 >30 18.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.9	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 18.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.9	Soot %	%	*ASTM D7844	>3	0.1		
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.9	Nitration	Abs/cm	*ASTM D7624	>20	5.5		
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	18.6		
	FLUID DEGRA	ADATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 8.5 9.7	Oxidation	Abs/.1mm	*ASTM D7414	>25	13.9		
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.7		



OIL ANALYSIS REPORT







Certificate 12367

Sample No.

Lab Number : 06151468

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

: PCA0118123

Unique Number : 10981546

Received **Tested** Diagnosed

: 17 Apr 2024 Test Package : MOB 1 (Additional Tests: TBN)

: 18 Apr 2024 : 18 Apr 2024 - Wes Davis

Contact: SPENCER COOPER spencer.cooper@trinitasfarming.com

T: (209)493-2999

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)

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Contact/Location: SPENCER COOPER - TRIFIR

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