

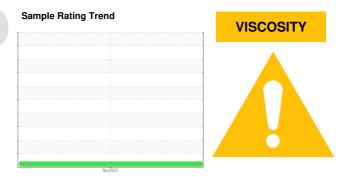




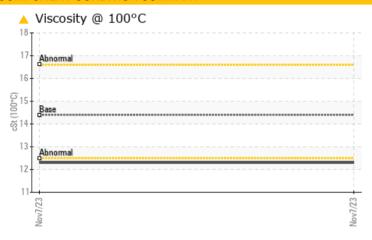
TRACTORS [TRACTORS] 144

Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (--- GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC 7	TEST RE	SULTS			
Sample Status				ATTENTION	
Visc @ 100°C	cSt	ASTM D445	144	A 123	

Customer Id: ARMBEANE Sample No.: SBP0005633 Lab Number: 06007559 Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data: Sean Felton +1 919-379-4092 sfelton@wearcheckusa.com

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

RECOMMENDED	RECOMMENDED ACTIONS					
Action	Status	Date	Done By	Description		
Change Fluid			?	Oil and filter change at the time of sampling has been noted.		
Change Filter			?	Oil and filter change at the time of sampling has been noted.		

HISTORICAL DIAGNOSIS



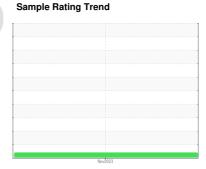
OIL ANALYSIS REPORT



TRACTORS [TRACTORS] 144

Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (--- GAL)





DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

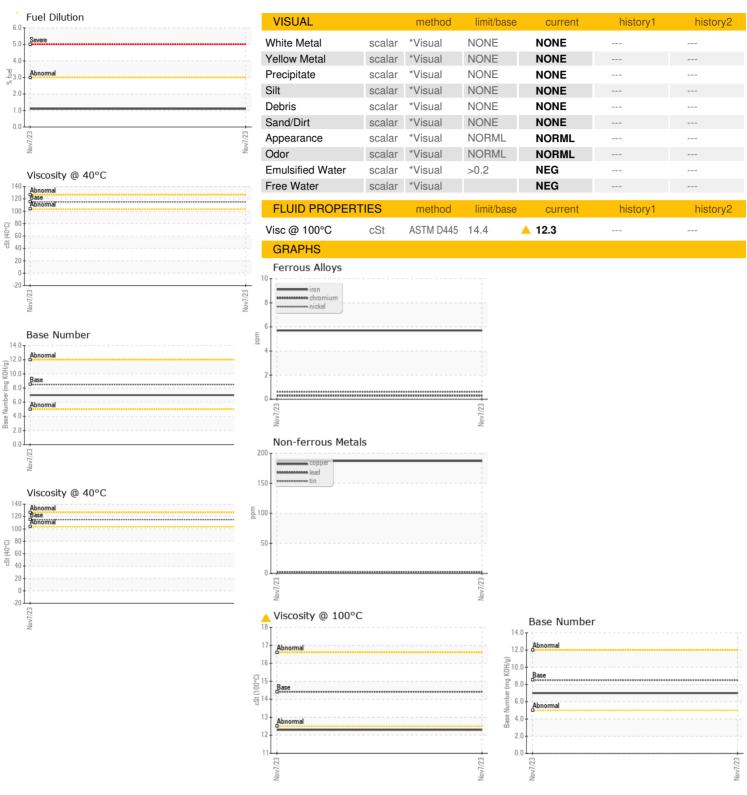
Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Client Info Q7 Nov 2023	AE 15440 (G	IAL)			Nov2023		
Client Info Q7 Nov 2023	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Client Info Q7 Nov 2023	Sample Number		Client Info		SBP0005633		
Oil Changed	Sample Date		Client Info		07 Nov 2023		
Contamed Client Info Changed Client Info Changed Contamination C	Machine Age	mls	Client Info		25000		
CONTAMINATION method limit/base current history1 history2	Oil Age	mls	Client Info		0		
CONTAMINATION	Oil Changed		Client Info		Changed		
WEAR METALS	Sample Status				ATTENTION		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >120 6 Chromium ppm ASTM D5185m >20 <1	CONTAMINATIO	N	method	limit/base	current	history1	history2
Concording Con	Glycol		WC Method		NEG		
Chromium	WEAR METALS		method	limit/base	current	history1	history2
ASTM D5185m >5	ron	ppm	ASTM D5185m	>120	6		
Description	Chromium	ppm	ASTM D5185m	>20	<1		
ASTM D5185m >2	Vickel	ppm	ASTM D5185m	>5	<1		
Aluminum	Titanium	ppm	ASTM D5185m	>2	0		
Aluminum	Silver		ASTM D5185m	>2	0		
Copper	Aluminum		ASTM D5185m	>20	2		
Tin	_ead	ppm	ASTM D5185m	>40	2		
Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 250 7 Barium ppm ASTM D5185m 10 0 Molybdenum ppm ASTM D5185m 100 60 Manganese ppm ASTM D5185m 100 60 Magnesium ppm ASTM D5185m 450 988 Phosphorus ppm ASTM D5185m 450 988 Phosphorus ppm ASTM D5185m 1150 1107 Zilicu ppm ASTM D5185m 1350 1354 Sulfur ppm ASTM D5185m >25 5	Copper	ppm	ASTM D5185m	>330	187		
ADDITIVES	Гіп	ppm	ASTM D5185m	>15	1		
ADDITIVES	Vanadium	ppm	ASTM D5185m		0		
Boron	Cadmium	ppm	ASTM D5185m		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 100 60 Manganese ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m	250	7		
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 450 988 Calcium ppm ASTM D5185m 3000 1068 Phosphorus ppm ASTM D5185m 1150 1107 Zinc ppm ASTM D5185m 1350 1354 Sulfur ppm ASTM D5185m 1350 3118 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 5 Godium ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >20 2 Fuel % ASTM D5185m >20 2 Soot % *ASTM D7844 >4 0.1	Barium	ppm	ASTM D5185m	10	0		
Magnesium ppm ASTM D5185m 450 988 Calcium ppm ASTM D5185m 3000 1068 Phosphorus ppm ASTM D5185m 1150 1107 Zinc ppm ASTM D5185m 1350 1354 Sulfur ppm ASTM D5185m 4250 3118 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 5 Sodium ppm ASTM D5185m >158 3 Potassium ppm ASTM D5185m >20 2 Fuel % ASTM D5185m >20 2 Fuel % ASTM D5185m >3.0 1.1 Fuel % ASTM D544 >4<	Molybdenum	ppm	ASTM D5185m	100	60		
Calcium ppm ASTM D5185m 3000 1068 Phosphorus ppm ASTM D5185m 1150 1107 Zinc ppm ASTM D5185m 1350 1354 Sulfur ppm ASTM D5185m 4250 3118 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 5 Sodium ppm ASTM D5185m >158 3 Potassium ppm ASTM D5185m >20 2 Fuel % ASTM D3524 >3.0 1.1 Soot % % *ASTM D7844 >4 0.1 Soot % % *ASTM D7624 >20 8.9 Sulfation Abs/.1mm *ASTM D7414	Manganese	ppm	ASTM D5185m		<1		
Phosphorus ppm ASTM D5185m 1150 1107 Zinc ppm ASTM D5185m 1350 1354 Sulfur ppm ASTM D5185m 4250 3118 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 5 Sodium ppm ASTM D5185m >158 3 Potassium ppm ASTM D5185m >20 2 Fuel % ASTM D3524 >3.0 1.1 Soot % % *ASTM D7844 >4 0.1 Soot % % *ASTM D7624 >20 8.9 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 FLUID DEGRADATION method limit/bas	Magnesium	ppm	ASTM D5185m	450	988		
Zinc	Calcium	ppm	ASTM D5185m	3000	1068		
Sulfur ppm ASTM D5185m 4250 3118 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 5 Sodium ppm ASTM D5185m >158 3 Potassium ppm ASTM D5185m >20 2 Fuel % ASTM D5185m >3.0 1.1 Fuel % ASTM D7844 >4 0.1 Soot % % *ASTM D7844 >4 0.1 Soulfation Abs/.1mm *ASTM D7415 >30	Phosphorus	ppm	ASTM D5185m	1150	1107		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 5 Sodium ppm ASTM D5185m >158 3 Potassium ppm ASTM D5185m >20 2 Fuel % ASTM D3524 >3.0 1.1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.1 Nitration Abs/cm *ASTM D7624 >20 8.9 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5	Zinc	ppm	ASTM D5185m	1350	1354		
Silicon ppm ASTM D5185m >25 5 Sodium ppm ASTM D5185m >158 3 Potassium ppm ASTM D5185m >20 2 Fuel % ASTM D3524 >3.0 1.1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.1 Nitration Abs/cm *ASTM D7624 >20 8.9 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5	Sulfur	ppm	ASTM D5185m	4250	3118		
Sodium	CONTAMINANTS	3	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 2 Fuel % ASTM D3524 >3.0 1.1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.1 Nitration Abs/cm *ASTM D7624 >20 8.9 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5	Silicon	ppm	ASTM D5185m	>25	5		
Fuel % ASTM D3524 >3.0 1.1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.1 Nitration Abs/cm *ASTM D7624 >20 8.9 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5	Sodium	ppm	ASTM D5185m	>158	3		
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.1 Nitration Abs/cm *ASTM D7624 >20 8.9 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5	Potassium	ppm	ASTM D5185m	>20	2		
Soot % *ASTM D7844 >4 0.1 Nitration Abs/cm *ASTM D7624 >20 8.9 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5	Fuel	%	ASTM D3524	>3.0	1.1		
Nitration Abs/cm *ASTM D7624 >20 8.9 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 20.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5	Soot %	%	*ASTM D7844	>4	0.1		
Sulfation Abs/.1mm *ASTM D7415 >30 20.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5	Vitration	Abs/cm	*ASTM D7624	>20	8.9		
Oxidation							
	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.5		
	Base Number (BN)	mg KOH/g		8.5	7.0		



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number

Unique Number

: SBP0005633 : 06007559 : 10741321

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 14 Nov 2023 Diagnosed

: 16 Nov 2023 Diagnostician : Sean Felton

Test Package : FLEET (Additional Tests: FuelDilution, KV40, PercentFuel)

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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