OIL ANALYSIS REPORT

VOLVO PENTA 3940017371 - STARBOARD IPS MARTINELLI

Sample No: VPA058205

Oil Type: GEAR OIL SAE 75W90

Sample Date 23 Apr 2024 Machine Hours 0 Oil Hours 0 Sample Status SEVERE Somple Status SEVERE OIL CONDITION Visc @ 40°C cSt 102 CONTAMINATION Water % NEG Solium ppm 123 VeAR METALS Iron ppm 487 Iron ppm 1 Iron ppm 1 Iron ppm 1 </th <th></th> <th></th> <th></th> <th></th> <th></th>					
Sample Date 23 Apr 2024 Machine Hours 0 Oil Hours 0 Oil Changed Not Changd Sample Status SEVERE OIL CONDITION Visc @ 40°C cSt 102 CONTAMINATION Water % NEG Sodium ppm 16 Sodium ppm 123 VEAR METALS Iron ppm< 487 Iron ppm 1 Molybdenum ppm 9	SAMPLE INFORM	ATION			
Machine Hours 0 Oil Hours 0 Sample Status SEVERE OIL CONDITION Visc @ 40°C cSt 102 CONTAMINATION Water % NEG Solition ppm 16 Solition ppm 16 Solition ppm 123 VEAR METALS Pop 23 Copper ppm 487 Iron ppm<<11	Sample Number		VPA058205	 	
Oil Hours 0 Oil Changed Not Changd Sample Status SEVERE OIL CONDITION Visc @ 40°C CSt 102 CONTAMINATION Water % NEG Sodium ppm 16 Sodium ppm 23 WEAR METALS Iron ppm 487 Iron ppm 41 Copper ppm 32 Italianum ppm 5 Molybdenum ppm 6 Nickel ppm 0	Sample Date		23 Apr 2024	 	
Not Changd Sample Status SEVERE OIL CONDITION Visc @ 40°C CSt 102 CONTAMINATION Water % NEG Solium ppm 16 Potassim ppm 23 Potassim ppm 32 Potassim ppm 32 Potassim ppm 32 Iron ppm 31 Iron ppm 487 Aluminum ppm 1 Molybde	Machine Hours		0	 	
Sample Status SEVERE OLL CONDITION Visc @ 40°C cSt 102 CONTAMINATION Water % NEG Sodium ppm 23 Potassium ppm 23 WEAR METALS PQ 23 Iron ppm 487 Copper ppm 32 Iron ppm 4 Coper ppm 4 Iron ppm 4	Oil Hours		0	 	
OIL CONDITION Visc @ 40°C cSt 102 CONTAMINATION Water % NEG Water % NEG Silicon ppm 16 Sodium ppm 23 Potassium ppm 23 WEAR METALS Potassium ppm 23 PQ 23 Iron ppm 487 Copper ppm 32 Itom ppm 5 Auminum ppm 5 Molydenum ppm 1 -	Oil Changed		Not Changd	 	
Visc @ 40°C cSt 102 CONTAMINATION Water % NEG Silicon ppm 16 Sodium ppm 23 Potassium ppm 23 WEAR METALS Potassium ppm 23 PQ 23	Sample Status		SEVERE	 	
CONTAMINATION Water % NEG Silicon ppm 16 Sodium ppm 23 Potassium ppm 23 WEAR METALS PQ 23 PQ 23 Copper ppm 23 Iron ppm 487 Copper ppm 312 Lead ppm 1 Aluminum ppm 5 Aluminum ppm 4 Molybdenum ppm 4 Nickel ppm 0	OIL CONDITION				
Water % NEG Silicon ppm 16 Sodium ppm 23 Potassium ppm 2 WEAR METALS PQ 23 Iron ppm 487 Copper ppm 32 Lead ppm <1	Visc @ 40°C	cSt	102	 	
Silicon ppm 16 Sodium ppm 23 Potassium ppm 2 WEAR METALS PQ 23 Iron ppm 487 Copper ppm 32 Lead ppm <1	CONTAMINATION				
Silicon ppm 16 Sodium ppm 23 Potassium ppm 2 WEAR METALS PQ 23 Iron ppm 487 Copper ppm 32 Lead ppm <1	Water	%	NEG	 	
Sodium ppm 23 Potassium ppm 2 WEAR METALS PQ 23 Iron ppm 487 Copper ppm 32 Lead ppm 1 Aluminum ppm 1 Aluminum ppm 44 Molybdenum ppm 4 Nickel ppm 0 Nikel ppm 0 Silver ppm 0 Magaanese ppm 0 Magnesium ppm 3 Magnesium <	Silicon			 	
Potassium ppm 2 WEAR METALS PQ 23 Iron ppm 487 Copper ppm 32 Lead ppm 487 Lead ppm <1 Aluminum ppm <1 Aluminum ppm 5 Aluminum ppm 4 Aluminum ppm 4 Nickel ppm 4 Nickel ppm 0 Manganese ppm 0 Magnesium ppm 10				 	
WEAR METALS PQ 23 Iron ppm 487 Copper ppm 32 Lead ppm <1	Potassium			 	
Iron ppm 487 Copper ppm 32 Lead ppm <1	WEAR METALS				
Copper ppm 32 Lead ppm <1	PQ		23	 	
Lead ppm <1 Tin ppm <1	Iron	ppm	4 87	 	
Tin ppm <1 Aluminum ppm 5 Chromium ppm 4 Molybdenum ppm 9 Nickel ppm 4 Nickel ppm 4 Silver ppm 0 Manganese ppm 0 Vanadium ppm 0 Adpensium ppm 10 Magnesium ppm 3 Phosphorus ppm 12 Barium ppm 1391	Copper	ppm	32	 	
Aluminum ppm 5 Chromium ppm 4 Molybdenum ppm 9 Nickel ppm 4 Nickel ppm 4 Titanium ppm <1	Lead	ppm	<1	 	
Chromium ppm 4 Molybdenum ppm 9 Nickel ppm 4 Titanium ppm <1	Tin	ppm	<1	 	
Molybdenum ppm 99 Nickel ppm 4 Titanium ppm <1	Aluminum	ppm	5	 	
Nickel ppm 44 Titanium ppm <1	Chromium	ppm	4	 	
Titanium ppm <1	Molybdenum	ppm	9	 	
Silver ppm 0 Manganese ppm 4 Vanadium ppm 0 ADDITIVES Calcium ppm 10 Magnesium ppm 3 Zinc ppm 12 Phosphorus ppm 1391 Barium ppm <1	Nickel	ppm	4	 	
Manganese ppm 4 Vanadium ppm 0 ADDITIVES Calcium ppm 10 Magnesium ppm 3 Zinc ppm 12 Phosphorus ppm 1391 Barium ppm <1	Titanium	ppm	<1	 	
Manganeseppm4Vanadiumppm0ADDITIVESCalciumppm10Magnesiumppm3Magnesiumppm12Phosphorusppm1391Bariumppm<1	Silver	ppm	0	 	
ADDITIVESCalciumppm10Magnesiumppm3Zincppm12Phosphorusppm1391Bariumppm<1	Manganese	ppm	4	 	
Calcium ppm 10 Magnesium ppm 3 Zinc ppm 12 Phosphorus ppm 1391 Barium ppm <10	Vanadium	ppm	0	 	
Magnesium ppm 3 Zinc ppm 12 Phosphorus ppm 1391 Barium ppm <1	ADDITIVES				
Magnesium ppm 3 Zinc ppm 12 Phosphorus ppm 1391 Barium ppm <1	Calcium	ppm	1 0	 	
Zinc ppm 12 Phosphorus ppm 1391 Barium ppm <1	Magnesium			 	
Phosphorus ppm 1391 Barium ppm <1	Zinc			 	
Barium ppm 1	Phosphorus		1391	 	
	-			 	
	Boron	ppm	187	 	

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nmend that you drain the oil component if this has not een done. We advise that ect for the source(s) of wear. nmend an early resample to this condition.Gear wear is . There is no indication of amination in the oil. The oil ger serviceable as a result of rmal and/or severe wear.

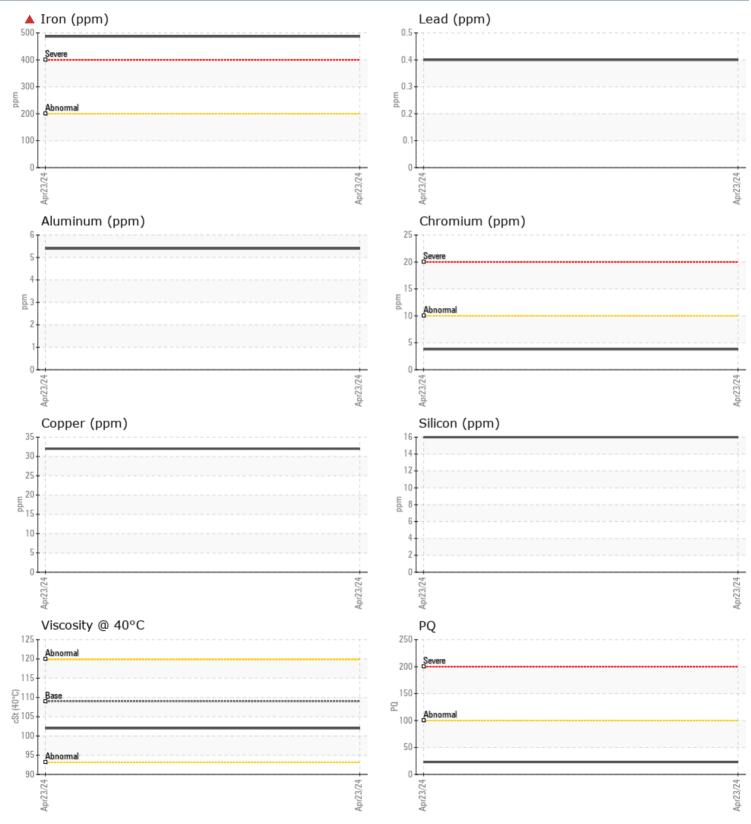
Depot: VP705283 Unique No: 11005536 Signed: Jonathan Hester Report Date: 03 May 2024 Contact/Location: SERVICE MANAGER - VP705283



OIL ANALYSIS REPORT



GRAPHS



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Contact/Location: SERVICE MANAGER - VP705283