

OIL ANALYSIS REPORT







DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

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

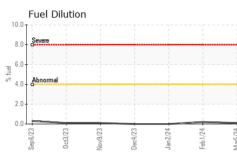
Fluid Condition

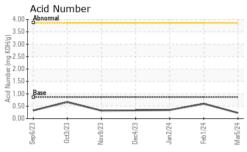
The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

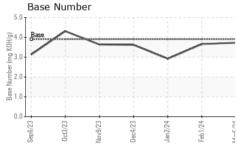
AL)		Sep2023	0ct2023 Nov2023	Dec2023 Jan2024 Feb2024	Mar2024	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0103464	PCA0117175	PCA0111891
Sample Date		Client Info		05 Mar 2024	01 Feb 2024	02 Jan 2024
Machine Age	hrs	Client Info		96584	95823	95114
Oil Age	hrs	Client Info		5773	5012	4305
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	.S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	0	<1
Chromium	ppm	ASTM D5185m	>4	0	0	0
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	1	2
Lead	ppm	ASTM D5185m	>30	<1	<1	0
Copper	ppm	ASTM D5185m	>35	0	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	0	0
Barium	ppm	ASTM D5185m	1	0	0	0
Molybdenum	ppm	ASTM D5185m	2	0	0	<1
Manganese	ppm	ASTM D5185m	1	<1	<1	0
Magnesium	ppm	ASTM D5185m	5	8	9	9
Calcium	ppm	ASTM D5185m	1220	1285	1253	1358
Phosphorus	ppm	ASTM D5185m	298	285	298	319
Zinc	ppm	ASTM D5185m	350	363	351	348
Sulfur	ppm	ASTM D5185m	1995	2334	2333	2366
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	2	1	2
Sodium	ppm	ASTM D5185m		2	1	0
Potassium	ppm	ASTM D5185m	>20	1	1	1
Fuel	%	ASTM D3524	>4.0	0.1	0.2	0.0
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	4.0	4.0	4.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	14.7	14.5	14.4
FLUID DEGRAI	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	8.7	8.5	8.6
			0.00		0 500	0.040
Acid Number (AN)	mg KOH/g	ASTM D8045	0.86	0.23	0.599	0.346

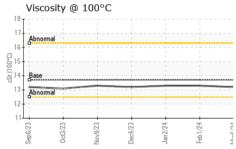


OIL ANALYSIS REPORT









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	VISUAL		methoo			history1	history2	
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE	
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE	
Feb1/24 Mar5/24	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
M _č	Odor	scalar	*Visual	NORML	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	NEG	
	FLUID PROP	ERTIES	methoo	d limit/bas	se current	history1	history2	
	Visc @ 100°C	cSt	ASTM D4	45 13.7	13.2	13.3	13.3	
	GRAPHS							
	Iron (ppm)				Lead (ppm)		
	100 Severe	1	,		60 50			
Feb1/24 Mar5/24	80-	1			40			
¥ W	Abnormal				and Abnormal			
	40				20			
	20-				10			
	Sep6/23	4/23	Jan 2/24 -	Mar5/24 -	Sep6/23	Nov9/23 -	Jan 2/24 - Feb 1/24 - Mar5/24 -	
	Sep 6/23 0ct3/23 Nov9/23	Dec4/23	Jan2	Mar5	Sep6/23 0ct3/23	Nov: Dec4	Janí Feb1 Mar5	
	Aluminum (ppm)			Chromium	(ppm)		
	20				⁸ T			
	15 - Severe				6 - Severe			
	E 10 - Abnormal				E 4 - Abnormal			
Feb1/24		1		1				
E 2	5-				2			
		23	24	24	23 0	23	24	
	Sep6/23 0ct3/23 Nov9/23	Dec4/23	Jan2/24 Feh1/24	Mar5/24	Sep6/23 0ct3/23	Nov9/23 Dec4/23	Jan 2/24 Feb 1/24 Mar5/24	
	Copper (ppm)				Silicon (pp	m)		
	80 Severe				200 Severe			
	60 -				150-			
	E 40 - Abnormal			8	Abnormal			
	20-	1	1		50-			
Feb1/24 -					50			
Feb1/24 мс. л.и	13 13 10	/23	124	/24	123	/23 -	/24 - /24 -	
	Sep 6/23 0ct3/23 Nov9/23	Dec4/23	Jan2/24 Feh1/24	Mar5/24	Sep 6/23 0ct3/23	Nov9/23 Dec4/23	Jan 2/24 Feb 1/24 Mar5/24	
	Viscosity @ 100°	C			Base Numl	ber		
	18 Abnormal				(PHQ) Base august 2.0 1.0			
	16- Abnormal			S	Hoy Base			
	(2001) 14 Base 73 Abnormal				Ē 3.0 - **			
	ත් Abnormal	1			g 2.0			
	10				8 1.0 0.0			
	Sep6/23 + 0ct3/23 + 0ct3/2	Dec4/23 -	Jan2/24 -	Mar5/24	Sep 6/23	Nov9/23 + Dec4/23 +	Jan 2/24 + Feb 1/24 + Mar5/24 +	
	Sep Oct	Dec	Jan	Mari	Sep	Nov	Jan Feb Mari	
		Rece Teste Diagr Fests: Fue	ived : ed : nosed : IDilution, F	: 08 Mar 2024 : 12 Mar 2024 : 12 Mar 2024 PercentFuel)	4 4 - Wes Davis		HAYSI BOOSTER (S PARK ROAD HAYSI, VA US 24256 Service Manager	

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)

Certificate L2367

Contact/Location: Service Manager - ENEHAYBOO