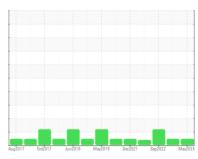


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id **PAC LINE 1**

Hydraulic System

AW HYDRAULIC OIL ISO 46 (--- GAL)

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

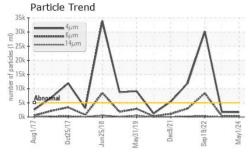
Fluid Condition

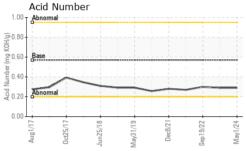
Confirm oil type. The AN level is acceptable for this fluid. The condition of the oil is suitable for further

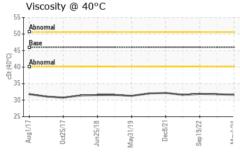
	Aug2017 Occ2017 Jun2016 May2019 Dec2021 Sep2022 May2024					
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PTK0005302	PTK0004404	PTK0003593
Sample Date		Client Info		01 May 2024	28 Aug 2023	19 Sep 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINATION	N .	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	2	2	3
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	0	0	<1
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>75	10	10	12
Tin	ppm	ASTM D5185m	>10	0	0	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	5	0	6	0
Molybdenum	ppm	ASTM D5185m	5	<1	0	<1
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	25	<1	_	
	ppiii	AO IIVI DO IOOIII		٠.	5	1
Calcium	ppm	ASTM D5185m	200	84	79	1 96
Calcium Phosphorus	• • • • • • • • • • • • • • • • • • • •		300		79 326	
Phosphorus Zinc	ppm	ASTM D5185m		84 322 354	79	96
Phosphorus	ppm	ASTM D5185m ASTM D5185m	300	84 322	79 326	96 329
Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	300 370	84 322 354 1031 current	79 326 380	96 329 365
Phosphorus Zinc Sulfur	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	300 370 2500 limit/base	84 322 354 1031	79 326 380 1111	96 329 365 1210
Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	300 370 2500 limit/base	84 322 354 1031 current	79 326 380 1111 history1	96 329 365 1210 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	300 370 2500 limit/base >20	84 322 354 1031 current	79 326 380 1111 history1	96 329 365 1210 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	300 370 2500 limit/base >20	84 322 354 1031 current <1	79 326 380 1111 history1 0	96 329 365 1210 history2 <1
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	300 370 2500 limit/base >20 >20	84 322 354 1031 current <1 2	79 326 380 1111 history1 0 0	96 329 365 1210 history2 <1 <1
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	300 370 2500 limit/base >20 >20 limit/base	84 322 354 1031 current <1 2 0	79 326 380 1111 history1 0 0 history1	96 329 365 1210 history2 <1 <1 0
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	300 370 2500 limit/base >20 >20 limit/base >5000	84 322 354 1031 current <1 2 0 current	79 326 380 1111 history1 0 0 history1 1729 329 29	96 329 365 1210 history2 <1 <1 0 history2 30210
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647	300 370 2500 limit/base >20 >20 limit/base >5000 >1300	84 322 354 1031 current <1 2 0 current 1664 359	79 326 380 1111 history1 0 0 history1 1729 329	96 329 365 1210 history2 <1 <1 0 history2 30210 8398
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	300 370 2500 limit/base >20 >20 limit/base >5000 >1300 >160	84 322 354 1031 current <1 2 0 current 1664 359 16	79 326 380 1111 history1 0 0 history1 1729 329 29	96 329 365 1210 history2 <1 <1 0 history2 30210 8398 374
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	300 370 2500 limit/base >20 >20 limit/base >5000 >1300 >160 >40 >10	84 322 354 1031 current <1 2 0 current 1664 359 16 2	79 326 380 1111 history1 0 0 history1 1729 329 29 7 1 0	96 329 365 1210 history2 <1 <1 0 history2 30210 ▲ 8398 ▲ 374 76 1 0
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	300 370 2500 limit/base >20 >20 limit/base >5000 >1300 >160 >40 >10	84 322 354 1031 current <1 2 0 current 1664 359 16 2 0	79 326 380 1111 history1 0 0 history1 1729 329 29 7 1	96 329 365 1210 history2 <1 <1 0 history2 30210 8398 374 76 1

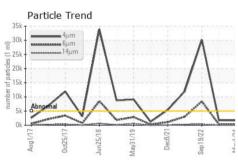


OIL ANALYSIS REPORT









VISUAL		method	limit/base	current	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
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
ELLID DDODED	TIEC	mathad	limit/bass	Olivropt.	hiotomit	hiotomyO

I LOID I HOI LIH	ILO					
Visc @ 40°C	cSt	ASTM D445	46	31.6	31.8	31.9

SAMPLE IMAGES

Color

Bottom

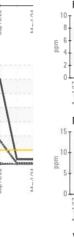


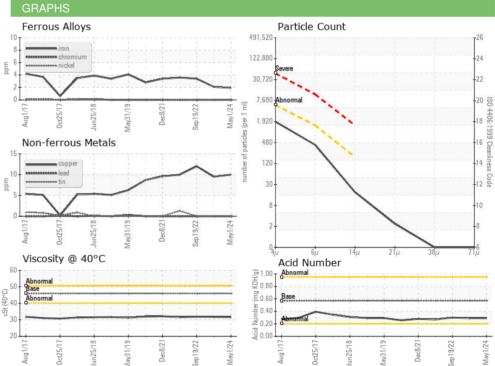
















Certificate 12367

Laboratory Sample No.

: PTK0005302 Lab Number : 06234840 Unique Number : 11123674 Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 12 Jul 2024

Diagnosed

Tested : 15 Jul 2024 : 15 Jul 2024 - Don Baldridge

HEIDTMAN STEEL 10 NORTHGATE INDUSTRIAL DR

GRANITE CITY, IL US 62040

Contact: Rudy Villar

Rudy.Villar@Heidtman.com

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)

T:

F: