

### **OIL ANALYSIS REPORT**

#### Sample Rating Trend

#### NORMAL

# FES TYSNRH HS305 (S/N 2552905)

Refrigeration Compressor

USPI 1009-68 SC (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

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

#### Fluid Condition

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

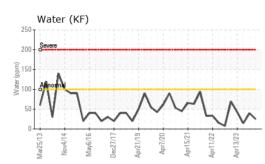
Τ																		
h		÷.																
		L.		J.,										Ľ			1	
						Π						d.			h	1		
013	Nov	2014	Mavi	2016	Dec2	117	Apr2	019	Aprz	020	Aprž	021	Apr2	122	Apr2	023		

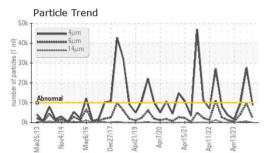


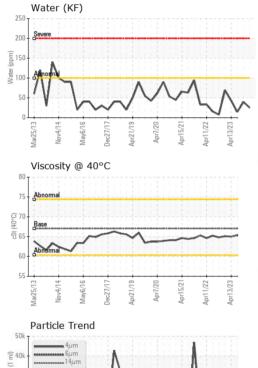
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP0004980	USP0001217	USP255392
Sample Date		Client Info		15 Jan 2024	15 Oct 2023	11 Jul 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ABNORMAL	ATTENTION
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	<1	0	0
Chromium	ppm	ASTM D5185m	>2	<1	0	0
Nickel	ppm	ASTM D5185m		0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>3	0	0	0
Lead	ppm	ASTM D5185m	>2	0	<1	0
Copper	ppm	ASTM D5185m	>8	<1	0	0
Tin	ppm	ASTM D5185m		0	0	0
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		0	0	0
Calcium	ppm	ASTM D5185m		0	0	0
Phosphorus	ppm	ASTM D5185m		0	0	<1
Zinc	ppm	ASTM D5185m		0	<1	0
Sulfur	ppm	ASTM D5185m	50	0	0	0
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	1	<1	<1
Sodium	ppm	ASTM D5185m		0	0	0
Potassium	ppm	ASTM D5185m	>20	0	<1	0
Water	%	ASTM D6304	>0.01	0.002	0.003	0.001
ppm Water	ppm	ASTM D6304	>100	25	39.4	14.4
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	8752	<b>2</b> 7667	9428
Particles >6µm		ASTM D7647	>2500	2143	▲ 9695	<b>4132</b>
Particles >14µm		ASTM D7647	>320	114	<b>4</b> 575	301
Particles >21µm		ASTM D7647	>80	20	<u> </u>	41
Particles >38µm		ASTM D7647	>20	0	1	0
Particles >71µm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	20/18/14	▲ 22/20/16	▲ 20/19/15
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.005	0.014	0.015	0.014

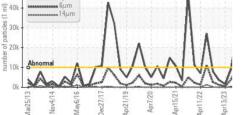


## **OIL ANALYSIS REPORT**









Certificate L2367

P

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	LIGHT
Debris	scalar	*Visual	NONE	LIGHT	LIGHT	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	>0.01	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPER	TIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	67	65.0	64.9	65.3
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
Color				NH3 - ER FE SHA ER SHARE Construction Constr		ERBA
Bottom					(6)	

GRAPHS Ferrous Alloys Particle Count 491 520 122,88 74 30,720 7,68 20 8 cc/11/22 nr13/73 4406 lec27 Der 1,920 1999 Clea 480 Non-ferrous Metals 6 120 2 Code 30 pr15/2 or11/2 nr13/7 Aar75/ Jec27/ Dr21/ Viscosity @ 40°C Acid Number 8 (<sup>B</sup>/H0.05 H0X 0.04 75 Ē 0.03 70 Acid Number 0.01 0000 60 55 Apr11/22 pr13/23 -Apr21/19 Apr7/20 Apr15/21 Apr15/21 Apr11/22 Apr13/23 May6/16 Apr21/19 Anr7/70 Amon All Dec27/1 Dec27/17 Mar25/1: Mar25/ **TYSON-NORTH RICHLAND HILLS-USP** : WearCheck USA - 501 Madison Ave., Cary, NC 27513 : USP0004980 Recieved : 16 Jan 2024

: 17 Jan 2024

: Doug Bogart

6350 BLOWN CT NORTH RICHLAND HILLS, TX US 76180 Contact: JOHN MORGAN

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: 06061205

: 10832587

\* - 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)

Diagnosed

Diagnostician

T: (817)514-3519 F:

Laboratory

Sample No.

Lab Number

**Unique Number** 

Test Package : IND 2

Contact/Location: JOHN MORGAN - TYSNORTX