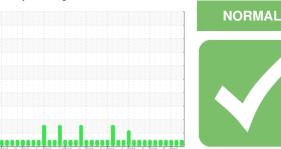


# **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# FES TYSBBOW HS-7 (S/N 00481-004-1-01-02)

Refrigeration Compressor

USPI ALT-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 oil. The amount and size of particulates present in the system are acceptable.

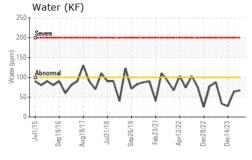
## **Fluid Condition**

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

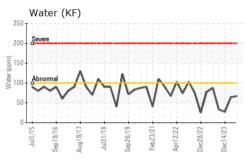
		il2015 Sep201	6 Aug2017 Jul2018 Se	p2019 Feb2021 Apr2022 Dec2022	Dec2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP0011389	USP0007228	USP0004209
Sample Date		Client Info		12 May 2024	08 Feb 2024	14 Dec 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	0	0	0
Chromium	ppm	ASTM D5185m	>2	0	0	0
Nickel	ppm	ASTM D5185m		0	0	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	0	0
Copper	ppm	ASTM D5185m	>8	0	0	0
Tin	ppm	ASTM D5185m	>4	<1	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		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		1	0	0
Magnesium	ppm	ASTM D5185m		0	0	<1
Calcium	ppm	ASTM D5185m		0	0	0
Phosphorus	ppm	ASTM D5185m		0	0	1
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m	50	8	19	0
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	2	2	3
Sodium	ppm	ASTM D5185m		1	<1	0
Potassium	ppm	ASTM D5185m	>20	0	0	2
Water	%	ASTM D6304		0.006	0.006	0.003
ppm Water	ppm	ASTM D6304	>100	67	64	27
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	964	814	1291
Particles >6µm		ASTM D7647	>2500	178	220	301
Particles >14µm		ASTM D7647	>320	9	13	13
Particles >21µm		ASTM D7647	>80	3	2	3
Particles >38µm		ASTM D7647	>20	0	0	1
Particles >71µm		ASTM D7647		0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	17/15/10	17/15/11	17/15/11
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.005	0.014	0.014	0.014

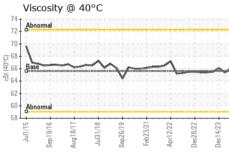


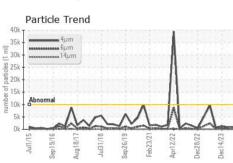
# **OIL ANALYSIS REPORT**

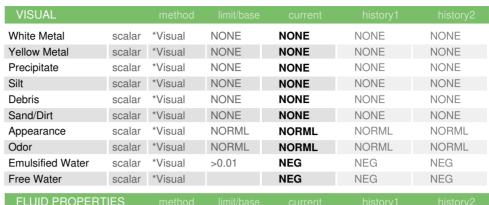


35k -	4	μm μm						
30k <b></b> 25k <b>-</b>	1	4μm						
20k -						1		
15k - Abi	normal					1		
10h T u		A		0	Λ	IAL	/	1
10k + 0		1	1		1	VY	. /	1
10k + 0	Sep19/16	Vang18/17 ♦	<b>V</b> 8L/18mc	Sep 26/19 1	Feb23/21		Jec28/22	Dec14/23









Visc @ 40°C	cSt	ASTM D445	65.6	66.0	65.4	66.1

SAMPLE IMAGES	method	



Color



GRAPHS		
Ferrous Alloys	Particle Count	T <sup>26</sup>
8 iron iron iron iron iron iron iron iron	122,880 <b>Severe</b>	-24
2	30,720 - Abnormal	-22
3 2 2 2 2 3 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	7 680 1	-20 IS
Jull/15 Sep19/16 Aug18/17 Jul31/18 Sep26/19 Feb23/21 Apr12/22 Dec28/22	<u>a</u> 1,920	18 18
Non-ferrous Metals	(iu 1.920 480 480 480 480 480 480 480 480 480 48	-18 112 112 112 112 112 112 112 112 112 1
10 8 copper	120-	14 miness
E 6	30	-12 G
2 300	8-	-10
Juli/15 Sep19/16 Jul31/18 Sep26/19 Feb23/21 Apr12/22 Dec28/22	2	-8
	$0_{4\mu}$ $6\mu$ $14\mu$ $21\mu$ $38\mu$	710
Viscosity @ 40°C	Acid Number	7.74
Abnormal	0.00 Acid Number (mg KOH/g)	
5-6-65 8 8 Abanana		
60 - Abnormal	g 0.01	###F
55 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	P 0.00	
Jull/15 Sep19/16 Aug18/17 Jul31/18 Sep26/19 Feb23/21 Apr12/22 Dec28/22	Jul1/15 Sep19/16 Aug18/17 Jul31/18 Sep26/19 Feb23/21 Dec28/22	Dec14/23





Certificate 12367

Laboratory Sample No.

Test Package : IND 2

: USP0011389 Lab Number : 06177211 Unique Number : 11023264

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

Diagnosed

: 13 May 2024 **Tested** : 14 May 2024

: 14 May 2024 - Doug Bogart

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) Contact: DWAYNE B T: (580)584-9191

BROKEN BOW, OK

**TYSON-BROKEN BOW-USP** 

Contact/Location: DWAYNE B - TYSBRO

PO BOX 220

US 74728

F: