

# **OIL ANALYSIS REPORT**





Area **97** ne Id [97] A97 Fan 901 Component **Center Gearbox** Fluic GEAR LIFE 150 (5 GAL)

# DIAGNOSIS

#### A Recommendation

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

# 🔺 Wear

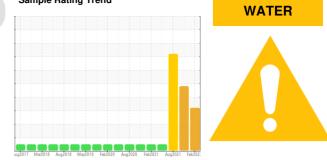
Gear wear is indicated.

## Contamination

Appearance is milky. There is a trace of moisture present in the oil.

### Fluid Condition

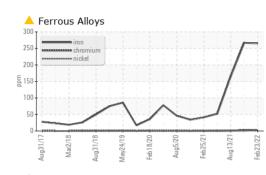
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

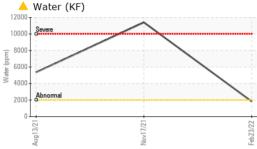


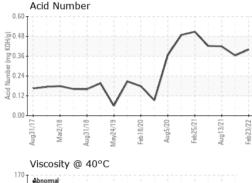
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		HPL0000084	HPL0000073	HPL0000045
Sample Date		Client Info		23 Feb 2022	17 Nov 2021	13 Aug 2021
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		350	200	50
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				ABNORMAL	SEVERE	SEVERE
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	<u> </u>	<b>a</b> 267	165
Chromium	ppm	ASTM D5185m	>10	2	2	1
Nickel	ppm	ASTM D5185m		2	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		1	<1	<1
Aluminum	ppm	ASTM D5185m	>25	10	11	8
Lead	ppm	ASTM D5185m	>50	5	5	4
Copper	ppm	ASTM D5185m	>200	<1	<1	<1
Tin	ppm	ASTM D5185m	>10	0	<1	<1
Antimony	ppm	ASTM D5185m		18	30	35
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	<1	<1
	ppm			0		
ADDITIVES	ppiii	method	limit/base	current	history1	history2
	ppm		limit/base			
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current	history1 20 0 <1	history2 20
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	<1 0	history1 20 0	history2 20 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current <1 0 <1	history1 20 0 <1	history2 20 0 <1
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<pre>current &lt;1 0 &lt;1 4 28 62</pre>	history1 20 0 <1 3 24 80	history2 20 0 <1 2 16 49
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<pre>current &lt;1 0 &lt;1 4 28</pre>	history1 20 0 <1 3 24	history2 20 0 <1 2 16
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<pre>current &lt;1 0 &lt;1 4 28 62</pre>	history1 20 0 <1 3 24 80	history2 20 0 <1 2 16 49
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<pre>current &lt;1 0 &lt;1 4 28 62 153</pre>	history1 20 0 <1 3 24 80 146	history2 20 0 <1 2 16 49 152
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<ul> <li>current</li> <li>&lt;1</li> <li>0</li> <li>&lt;1</li> <li>4</li> <li>28</li> <li>62</li> <li>153</li> <li>0</li> </ul>	history1 20 0 <1 3 24 80 146 <1	history2 20 0 <1 2 16 49 152 3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<ul> <li>current</li> <li>&lt;1</li> <li>0</li> <li>&lt;1</li> <li>4</li> <li>28</li> <li>62</li> <li>153</li> <li>0</li> <li>17854</li> </ul>	history1 20 0 <1 3 24 80 146 <1 19578	history2         20         0         <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<ul> <li>current</li> <li>&lt;1</li> <li>&lt;1</li> <li>4</li> <li>28</li> <li>62</li> <li>153</li> <li>0</li> <li>17854</li> <li>current</li> </ul>	history1         20         0         <1	history2         20         0         <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m	limit/base	current <1 0 <1 4 28 62 153 0 17854 current 20	history1         20         0         <1	history2         20         0         <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m	limit/base >50	<ul> <li>current</li> <li>&lt;1</li> <li>&lt;1</li> <li>4</li> <li>28</li> <li>62</li> <li>153</li> <li>0</li> <li>17854</li> <li>current</li> <li>20</li> <li>10</li> </ul>	history1         20         0         <1         3         24         80         146         <1         19578         history1         30         4	history2         20         0         <1         2         16         49         152         3         17519         history2         20         1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m	limit/base >50 >20	current         <1         0         <1         4         28         62         153         0         17854         current         20         10         4	history1         20         0         <1         3         24         80         146         <1         19578         history1         30         4         2	history2         20         0         <1         2         16         49         152         3         17519         history2         20         1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m           ASTM D5185m	limit/base >50 >20 >0.2	current         <1         0         <1         4         28         62         153         0         17854         current         20         10         4         0.183	history1         20         0         <1	history2 20 0 <1 2 16 49 152 3 17519 history2 20 1 1 1 0.536

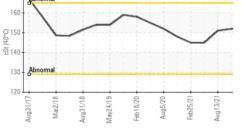


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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance Odor	scalar	*Visual	NORML	🔺 MILKY	MILKY	A HAZY
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	0.2%	0.2%	0.2%
Free Water	scalar	*Visual		NEG	NEG	1.0
FLUID PROPER	TIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		153	152	151
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image
				_		
GRAPHS						
🔺 Iron (ppm)				Lead (ppm)		
600 400 Severe			20	0		
				Severe		
100			특 10			
Abnormal						
200 - Abnormal	18/20	25/21		0 Abnormal		Feb25/21
	Feb 18/20	Aug5/20 Feb25/21 Aug 13/21		0 - Abnormal	May24/19	Feb25/21
Abnormal 2000 40/12 80/200	Feb18/20	Aug5/20 Feb25/21 Aug13/21	Feb23/22	Chromium (p	2	Feb25/21
Abnormal 2000 9 8U/IE <sup>Dn</sup> W 8U/IE <sup>Dn</sup> W Aluminum (ppm)	Feb18/20	Aug13/20	Feb23/22	Chromium (p	2	Feb25/21
Abnormal 2000 0 LIVIS Company 2000 0 LIVIS COMPANY	Feb18/20	Aug13/20	E E6023/22	Abnormal Abnormal 40 40 40 40 40 40 40 40 40 40	2	Feb25/21
Abnormal 2000 0 0 0 0 0 0 0 0 0 0 0 0	Feb 18/20	Aug5/201	c Feb:23/22	Aphnomal 4 4 4 4 4 4 4 4 4 4 4 4 4	2	Feb.25/21 Aug13/21
Abnormal 200 481/1E/Bmy Aluminum (ppm) 100 481/1E/Bmy Aluminum (ppm)			222 4 1 1 1 1	Abnomal 4 Abnomal 8 U/IE <sup>Dny</sup> Chromium (p	ppm)	
Abnormal 200 200 4B1/1E <sup>Bm</sup> W Aluminum (ppm) 4B1/2 <sup>2</sup> W Aluminum (ppm) 4B1/2 <sup>2</sup> W Abnormal 4B1/2 <sup>2</sup> W		Aug5/20 Feb25/21 Aug13/21 Aug13/21	c Feb:23/22	Aphnomal 4 4 4 4 4 4 4 4 4 4 4 4 4	ppm)	Feb25/21 Feb25/21
Approximation of the second se			222 1 1 1 1		May24/19	
Abnormal 2000 2000 2010 20			222 1 1 1 1	Chromium (p	May24/19	
Abnormal Abnorm			22 Lept23/	Abnomal 481/16 <sup>Bny</sup> 481/16 <sup>Bny</sup> Chromium (p 481/16 <sup>Bny</sup> Chromium (p 481/16 <sup>Bny</sup> 81/16 <sup>Bny</sup> Silicon (ppm)	May24/19	
Abnormal 2000 2010 20			22 Lep:23/	Abnomal 4 Abnomal 4 U/IE <sup>®</sup> my Chromium (p 4 U/IE <sup>®</sup> my Chromium (p 4 U/IE <sup>®</sup> my Silicon (ppm) 4 Chromal 4 U/IE <sup>®</sup> my 6 Chromal 8 U/IE <sup>®</sup> my 8 U/IE <sup>®</sup> my 6 Chromal 8 U/IE <sup>®</sup> my 8 Chromal 8 Chr	May24/19	
Abnomal 2000 200	Feb 18/20	Aug3/20	2 Eep23322 Eep23322 Eep23322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep232 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep232 Lep2322 L	Abnomal 4 Abnomal 4 U/IE <sup>Bmy</sup> Chromium (p 4 Abnomal 4 U/IE <sup>Bmy</sup> 5 Silicon (ppm) 5 Severe 4 Abnomal 6 U/IE <sup>Bmy</sup> 5 Silicon (ppm)	May24/19	Feb25/21
Abnownal BU/JEgunk B	Feb 18/20		22 Lep:23/	Aphoemal 481/16BnW 481/16BnW Chromium (p 481/16BnW Chromium (p 481/16BnW Silicon (ppm) 481/16BnW Silicon (ppm) 481/16BnW	May24/19	
Abnormal 40000 4000 4000 4000 4000 4000 4000 4000 4000 4000 4	Feb 18/20	Aug3/20	2 Eep23322 Eep23322 Eep23322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep232 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep2322 Lep232 Lep2322 L	Chromium (p Chromium (p) Chromium (p) Chr	May24/19	Feb25/21
Abnormal Abnormal Aluminum (ppm) Aluminum (	Feb 18/20	Aug3/20	Eeb23/22 Feb23/22 Feb23/22 Feb23/22 Feb23/22 Feb23/22 Feb23/22	Abnormal LVILEBINK Chromium (p Abnormal LVILEBINK Silicon (ppm) Abnormal LVILEBINK Silicon (ppm) Water	May24/19	Feb25/21
Abnormal 2000 Abnormal 2000 Aluminum (ppm) 40/1/1E <sup>bm</sup> W Aluminum (ppm) 40/1/1E <sup>bm</sup> W Copper (ppm) 40/1/1E <sup>bm</sup> W Viscosity @ 40°C Abnormal 40/1/1E <sup>bm</sup> W Viscosity @ 40°C	Feb 18/20	Aug3/20	2222222 Lep2372 Lep2372 Lep23	Abnormal LVILEBINK Chromium (p Abnormal LVILEBINK Silicon (ppm) Chromium (p Abnormal LVILEBINK Silicon (ppm) Chromium (p Abnormal LVILEBINK Silicon (ppm) Chromium (p Abnormal LVILEBINK Silicon (ppm) Chromium (p	May24/19	1
Aluminum (ppm) 4000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Feb 18/20 Feb 18/20	Aug3/20	Eeb23/22 Feb23/22 Feb23/22 Feb23/22 Feb23/22 Feb23/22 Feb23/22	Abnormal LVILEBINK Chromium (p Abnormal LVILEBINK Silicon (ppm) Chromium (p Abnormal LVILEBINK Silicon (ppm) Chromium (p Abnormal LVILEBINK Silicon (ppm) Chromium (p Abnormal LVILEBINK Silicon (ppm) Chromium (p	May24/19	1



Test Package : MOB 2 (Additional Tests: KF) Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. timothy.hubert@kensingsolutions.com \* - 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)

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