

OIL ANALYSIS REPORT



Machine Id 83E-44B2

Gearbox Fluid ROYAL PURPLE SYNERGY 90/150 (--- 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.

Fluid Condition

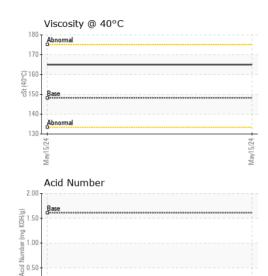
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	NATION	method	limit/base	current	history1	history2
Sample Number		Client Info		HPL0004878		
Sample Date		Client Info		15 May 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	45		
Chromium	ppm	ASTM D5185m	>15	<1		
Nickel	ppm	ASTM D5185m	>15	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m		<1		
Aluminum	ppm	ASTM D5185m	>25	2		
Lead	ppm	ASTM D5185m	>100	<1		
Copper	ppm	ASTM D5185m	>200	2		
Tin	ppm	ASTM D5185m	>25	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		5		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		1		
Calcium	ppm	ASTM D5185m		26		
Phosphorus	ppm	ASTM D5185m	200	103		
Zinc	ppm	ASTM D5185m		4		
Sulfur	ppm	ASTM D5185m		14522		
CONTAMINANTS	3	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	3		
Sodium	ppm	ASTM D5185m		0		
Potassium	ppm	ASTM D5185m	>20	9		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.61	0.17		



0.00 May15/24

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White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water	scalar scalar scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual	NONE NONE NONE NONE	NONE NONE NONE NONE		
Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water	scalar scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual	NONE NONE	NONE NONE		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water	scalar scalar scalar scalar scalar	*Visual *Visual	NONE	NONE		
Debris Sand/Dirt Appearance Odor Emulsified Water Free Water	scalar scalar scalar scalar	*Visual				
Sand/Dirt Appearance Odor Emulsified Water Free Water	scalar scalar scalar		NONE			
Appearance Odor Emulsified Water Free Water	scalar scalar	*Visual		NONE		
Odor Emulsified Water Free Water	scalar		NONE	NONE		
Emulsified Water Free Water		*Visual	NORML	NORML		
Free Water		*Visual	NORML	NORML		
	scalar	*Visual	>0.2	NEG		
	scalar	*Visual		NEG		
FLUID PROPER	RTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	148.2	165		
SAMPLE IMAG	ES	method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image
				L == d (mmm)		
1ron (ppm)			300-			
Courses			1			
a 200 - Abnormal			[≞] 100 ·	Abnormal		
0			-12 	24		
ay15/2			ay15/2	ay 15/2		
			M		- m-)	
150 _T	l) 		60-			
E 100 Severe			⊑ ⁴⁰			
⁵⁰ Abnormal			² 20	Abnormal		
0			-0	24		
ay15/			ay15/	ay15/		
Z			N			
Connor (nom)				Silicon (nnm)		
Copper (ppm)			150	Silicon (ppm)		
600 J			1	Severe		
600 T			150- <u>E</u> 100- <u>5</u> 0-			
400 Abnormal			트 100 · 특 50 · 0 ·	Abnormal		
400 Abnormal			트 100 · 특 50 · 0 ·	Abnormal		
600 400 200 0 400 400 400 400 400	c		- 000 - 00 - 00 - 00 - 00	Abnormal H2/51/keW		
600 400 Abnormal 0 + 525 Am Viscosity @ 40°0 180 T Abnormal	c		- 000 - 00 - 00 - 00 - 00	Abnormal http://www.acid Number		
600 400 Abnormal 0 + 525 Am Viscosity @ 40°0 180 T Abnormal	c		- 000 - 00 - 00 - 00 - 00	Abnormal H2/51/keW		
600 400 Abnomal 200 Viscosity @ 40° 400 400 400 400 400 400 400	c		- 000 - 00 - 00 - 00 - 00	Abnormal http://www.acid Number		
600 400 Abnormal 0 + 525 Am Viscosity @ 40°0 180 T Abnormal	C		트 100 · 특 50 · 0 ·	Abnormal http://www.acid Number		
	Color Bottom GRAPHS Iron (ppm) Generation Josephine Aluminum (ppm) Severe	SAMPLE IMAGES Color Bottom GRAPHS Iron (ppm) Generation Josephine Company Color GRAPHS Iron (ppm) Generation Color GRAPHS	SAMPLE IMAGES method Color Bottom GRAPHS Iron (ppm) Generation Aluminum (ppm) Generation Aluminum (ppm)	SAMPLE IMAGES method limit/base Color Bottom Image: Color Image: Color Bottom Image: Color Image: Color Image: Color GRAPHS Image: Color Image: Color Image: Color James Image: Color Image: Color Image: Color Image: Color Image: Color Image: Color	SAMPLE IMAGES method limit/base current Color no image Bottom no image GRAPHS no image Jong Jong Jong	SAMPLE IMAGES method limit/base current history1 Color no image no image no image Bottom no image no image no image GRAPHS Iron (ppm) Lead (ppm) Jobornal Jobornal Chromium (ppm) Jobornal Jobornal Chromium (ppm) Jobornal Jobornal Chromium (ppm)

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Contact/Location: M.S. MANHART - MARROB

Page 2 of 2