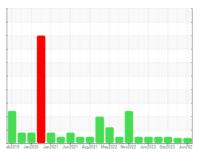


# **OIL ANALYSIS REPORT**

### Sample Rating Trend





Machine Id
BFP-1A
Component

Component Inboard Bearing

**ROYAL PURPLE SYNFILM GT 68 (--- GAL)** 

#### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

The water content is negligible. There is no indication of any contamination in the oil.

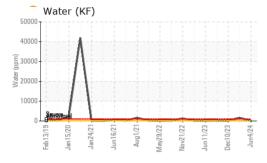
#### Fluid Condition

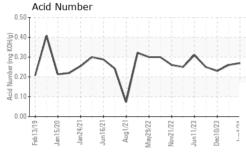
Viscosity of sample indicates oil is within ISO 32 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

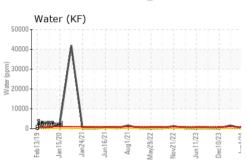
SAMPLE INFORMATION   method   imit/base   current   history1   history2	ის2019							
Sample Date	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2	
Machine Age         hrs         Client Info         0         0         0           Oil Age         hrs         Client Info         0         0         0           Oil Changed         Client Info         N/A         N/A         N/A           Sample Status         Client Info         N/A         N/A         N/A           WEARM Estatus         method         Imitibase         current         history1         history2           Iron         ppm         ASTM D5185m         20         0         0         <1         0           Chromium         ppm         ASTM D5185m         20         0         <1         0           Nickel         ppm         ASTM D5185m         20         0         <1         0           Silver         ppm         ASTM D5185m         20         0         2         <1           Lead         ppm         ASTM D5185m         20         0         2         <1           Copper         ppm         ASTM D5185m         20         0         <1         0           Caddium         ppm         ASTM D5185m         0         <1         0         <1           Copper	Sample Number		Client Info		RP0043321	RP0039480	RP0038787	
Oil Age         hrs         Client Info         N/A         N/A         N/A         N/A           Sample Status         Client Info         N/A         N/A         N/A         N/A           WEAR METALS         method         Imitibase         current         history!         history2           Iron         ppm         ASTM D5185m         >20         0         -1         0           Chromium         ppm         ASTM D5185m         >20         0         -1         0           Nickel         ppm         ASTM D5185m         >20         0         -1         0           Sliver         ppm         ASTM D5185m         >20         0         -1         0           Aluminum         ppm         ASTM D5185m         >20         0         -2         -1           Lead         ppm         ASTM D5185m         >20         0         -2         -1           Copper         ppm         ASTM D5185m         >20         0         -1         0           Caper         ppm         ASTM D5185m         >20         0         -1         0           Caper         ppm         ASTM D5185m         0         0         -1         <	Sample Date		Client Info		04 Jun 2024	13 Mar 2024	10 Dec 2023	
Oil Changed Status         Client Info         N/A ATTENTION         ATTENTION         N/A NORMAL           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         0         0         <1           Chromium         ppm         ASTM D5185m         >20         0         <1         0           Nickel         ppm         ASTM D5185m         >20         0         <1         0           Sliver         ppm         ASTM D5185m         >20         0         <1         0           Aluminum         ppm         ASTM D5185m         >20         0         2         <1           Lead         ppm         ASTM D5185m         >20         5         6         <1           Copper         ppm         ASTM D5185m         >20         12         6         19           Tin         ppm         ASTM D5185m         >20         0         <1         0           Vanadium         ppm         ASTM D5185m         >20         0         <1         0           Cadmium         ppm         ASTM D5185m         0         0         0	Machine Age	hrs	Client Info		0	0	0	
Sample Status	Oil Age	hrs	Client Info		0	0	0	
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         0         <1         0           Chromium         ppm         ASTM D5185m         >20         0         <1         0           Nickel         ppm         ASTM D5185m         >20         0         <1         0           Titanium         ppm         ASTM D5185m         >20         0         2         <1           Aluminum         ppm         ASTM D5185m         >20         0         2         <1           Lead         ppm         ASTM D5185m         >20         5         6         <1           Copper         ppm         ASTM D5185m         >20         12         6         19           Tin         ppm         ASTM D5185m         >20         0         <1         0           Cadmium         ppm         ASTM D5185m         0         <1         0           Cadmium         ppm         ASTM D5185m         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         0 <t< th=""><th>Oil Changed</th><th></th><th>Client Info</th><th></th><th>N/A</th><th>N/A</th><th>N/A</th></t<>	Oil Changed		Client Info		N/A	N/A	N/A	
Iron	Sample Status				ATTENTION	ATTENTION	NORMAL	
Chromium         ppm         ASTM D5185m         >20         0         <1	WEAR METALS		method	limit/base	current	history1	history2	
Nickel         ppm         ASTM D5185m         >20         0         <1	Iron	ppm	ASTM D5185m	>20	0	0	<1	
Titanium	Chromium	ppm	ASTM D5185m	>20	0	<1	0	
Stilver	Nickel	ppm	ASTM D5185m	>20	0	<1	0	
Aluminum	Titanium	ppm	ASTM D5185m		0	<1	0	
Lead	Silver	ppm	ASTM D5185m		0	0	0	
Copper         ppm         ASTM D5185m         >20         12         6         19           Tin         ppm         ASTM D5185m         >20         0         <1         0           Vanadium         ppm         ASTM D5185m         0         <1         0           Cadmium         ppm         ASTM D5185m         0         <1         0           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         0         0         0         0           Manganese         ppm         ASTM D5185m         0         0         0         0           Magnesium         ppm         ASTM D5185m         0         0         0         0           Phosphorus         ppm         ASTM D5185m         0         0         0         0           Phosphorus         ppm         ASTM D5185m         <1         0         2         2           Zinc         ppm         ASTM D5185m         <1         1         0         0           Silico	Aluminum	ppm	ASTM D5185m	>20	0	2	<1	
Tin         ppm         ASTM D5185m         >20         0         <1	Lead	ppm	ASTM D5185m	>20	5	6	<1	
Vanadium         ppm         ASTM D5185m         0         <1	Copper	ppm	ASTM D5185m	>20	12	6	19	
Cadmium         ppm         ASTM D5185m         0         <1	Tin	ppm	ASTM D5185m	>20	0	<1	0	
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	<1	0	
Boron	Cadmium	ppm	ASTM D5185m		0	<1	0	
Barium         ppm         ASTM D5185m         0         0         0           Molybdenum         ppm         ASTM D5185m         0         <1         0           Manganese         ppm         ASTM D5185m         0         0         0           Magnesium         ppm         ASTM D5185m         90         8         13         10           Calcium         ppm         ASTM D5185m         0         0         0         0           Phosphorus         ppm         ASTM D5185m         <1         0         2         2           Zinc         ppm         ASTM D5185m         <1         0         2         2         2         0 </th <th>ADDITIVES</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	ADDITIVES		method	limit/base	current	history1	history2	
Molybdenum         ppm         ASTM D5185m         0         <1	Boron	ppm	ASTM D5185m		0	0	0	
Manganese         ppm         ASTM D5185m         0         0         0           Magnesium         ppm         ASTM D5185m         90         8         13         10           Calcium         ppm         ASTM D5185m         0         0         0           Phosphorus         ppm         ASTM D5185m         <1         0         2           Zinc         ppm         ASTM D5185m         <1         0         2           Zinc         ppm         ASTM D5185m         <1         0         2           Zinc         ppm         ASTM D5185m         >15         <1         <1         0           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         <1         <1         0           Sodium         ppm         ASTM D5185m         >20         0         <1         <1         0           Sodium         ppm         ASTM D5185m         >20         0         <1         <1         0         0           Vater         %         ASTM D5185m         >20         0         <1         <1         0	Barium	ppm	ASTM D5185m		0	0	0	
Magnesium         ppm         ASTM D5185m         90         8         13         10           Calcium         ppm         ASTM D5185m         0         0         0         0           Phosphorus         ppm         ASTM D5185m         <1	Molybdenum	ppm	ASTM D5185m		0	<1	0	
Calcium         ppm         ASTM D5185m         0         0         0         0           Phosphorus         ppm         ASTM D5185m         <1         0         2           Zinc         ppm         ASTM D5185m         8         3         0           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         <1         <1         0           Sodium         ppm         ASTM D5185m         >15         <1         0         0           Potassium         ppm         ASTM D5185m         >20         0         <1         <1           Water         %         ASTM D6304         >2         0.005         0.155         0.005           ppm Water         ppm         ASTM D6304         >2         0.005         0.155         0.005           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOHg         ASTM D8045         0.27         0.26         0.23           VISUAL         method         limit/base         current         history1         histor	Manganese	ppm	ASTM D5185m		0	0	0	
Phosphorus         ppm         ASTM D5185m         <1	Magnesium	ppm	ASTM D5185m	90	8	13	10	
Zinc         ppm         ASTM D5185m         8         3         0           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         <1         <1         0           Sodium         ppm         ASTM D5185m         >20         0         <1         <1           Potassium         ppm         ASTM D5185m         >20         0         <1         <1           Water         %         ASTM D6304         >2         0.005         0.155         0.005           ppm Water         ppm         ASTM D6304         >2         0.005         0.155         0.005           ppm Water         ppm         ASTM D6304         >2         0.005         0.155         0.005           ppm Water         ppm         ASTM D6304         >2         0.005         0.155         0.005           ppm Water         ppm         ASTM D6304         >2         0.005         0.155         0.005           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg K0Hg         ASTM D8045	Calcium	ppm	ASTM D5185m		0	0	0	
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         <1         <1         0           Sodium         ppm         ASTM D5185m         >20         0         <1         <1           Potassium         ppm         ASTM D6304         >2         0.005         0.155         0.005           Water         %         ASTM D6304         >2         0.005         0.155         0.005           ppm Water         ppm         ASTM D6304         >2         0.005         0.155         0.005           ppm Water         ppm         ASTM D6304         >2         0.005         0.155         0.005           ppm Water         ppm         ASTM D6304         >2         0.005         0.155         0.005           ppm Water         ppm         ASTM D6304         >2         0.005         0.155         0.005           ppm Water         ppm         ASTM D6304         >2         0.005         0.155         0.005           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN) <td< th=""><th>Phosphorus</th><th>ppm</th><th>ASTM D5185m</th><th></th><th>&lt;1</th><th>0</th><th>2</th></td<>	Phosphorus	ppm	ASTM D5185m		<1	0	2	
Silicon         ppm         ASTM D5185m         >15         <1	Zinc	ppm	ASTM D5185m		8	3	0	
Sodium         ppm         ASTM D5185m         <1	CONTAMINANTS		method	limit/base	current	history1	history2	
Potassium ppm ASTM D5185m >20 0 <1 <1 Water % ASTM D6304 >2 0.005 0.155 0.005 ppm Water ppm ASTM D6304 56 1550 56  FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.27 0.26 0.23  VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	Silicon	ppm	ASTM D5185m	>15	<1	<1	0	
Water%ASTM D6304>20.0050.1550.005ppm WaterppmASTM D630456155056FLUID DEGRADATION method limit/base current history1history2Acid Number (AN)mg KOH/gASTM D80450.270.260.23VISUALmethod limit/base current history1history2White Metalscalar *Visual NONE NONE NONE NONE NONENONE NONE NONE NONEYellow Metalscalar *Visual NONE NONE NONE NONE NONE NONE NONENONE NONE NONE NONE NONE NONE NONE NONE	Sodium	ppm	ASTM D5185m		<1	0	0	
ppm Water ppm ASTM D6304 56 1550 56  FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 0.27 0.26 0.23  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE NONE  Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML NORML  Odor scalar *Visual NORML NORML NORML NORML	Potassium	ppm	ASTM D5185m	>20	0	<1	<1	
FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 0.27 0.26 0.23  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE NONE  Debris scalar *Visual NONE 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	Water	%	ASTM D6304	>2	0.005	0.155	0.005	
Acid Number (AN) mg KOH/g ASTM D8045 0.27 0.26 0.23  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	ppm Water	ppm	ASTM D6304		56	1550	56	
VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	FLUID DEGRADA	TION	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	Acid Number (AN)	mg KOH/g	ASTM D8045		0.27	0.26	0.23	
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	VISUAL		method	limit/base	current	history1	history2	
Precipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	White Metal	scalar		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  NORML NORML	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML		scalar						
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORML	Silt	scalar	*Visual	NONE	NONE	NONE	NONE	
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORML	Debris	scalar	*Visual	NONE	NONE	NONE	NONE	
Odor scalar *Visual NORML NORML NORML NORML	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	>2	NEG	0.2%		
Free Water scalar *Visual NEG ERT SAUVEUR NEW GBO	Free Water	scalar	*Visual	- >	NEG	ERTIE SAUVI	EUR <sub>N</sub> ENGBOS	

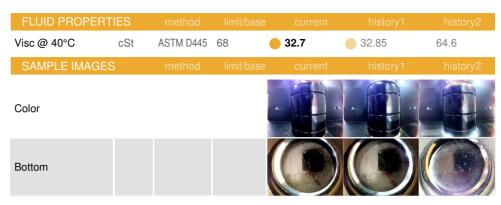


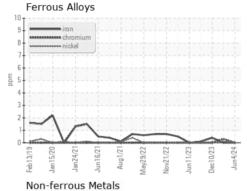
## **OIL ANALYSIS REPORT**

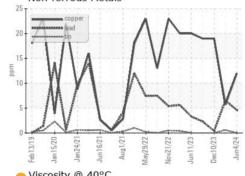


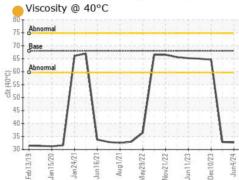


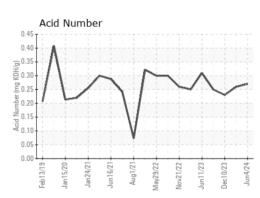
















Certificate 12367

Laboratory Sample No.

Lab Number : 06200271

: RP0043321 Unique Number : 11062394 Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 05 Jun 2024 **Tested** : 06 Jun 2024

Diagnosed

: 07 Jun 2024 - Don Baldridge

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

US 02215 Contact: ROBERT ST SAUVEUR robert.stsauveur@engie.com T: (401)651-9381

\* - 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/Location: ROBERT ST SAUVEUR - ENGBOS

**ENGIE-MATEP** 

BOSTON, MA

474 BROOKLINE AVE