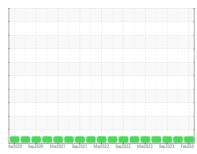


# **OIL ANALYSIS REPORT**

## Sample Rating Trend







# TOLE\_U4 TOLE\_U4\_M4

**Drive End Bearing** 

**ROYAL PURPLE SYNFILM GT 32 (4 QTS)** 

#### DIAGNOSIS

### Recommendation

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**

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

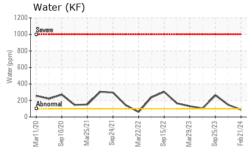
Machine Age         hrs         Client Info         0         0         0           Oil Age         hrs         Client Info         0         0         0           Oil Changed         Client Info         N/A         N/A         N/A           Sample Status         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         20         0         0         <1	1m2020 Smp2020 Mm2021 Smp2021 Mm2022 Smp2022 Mm2023 Smp2023 Fm202							
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Machine Age   hrs   Client Info   0	Sample Number		Client Info		RP0025895	RP0034068	RP0026209	
Oil Age         hrs         Client Info         N/A         N/A         N/A         N/A           Oil Changed         Client Info         N/A         N/A         N/A         N/A           Sample Status         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         ≥20         0         0         <1	Sample Date		Client Info		21 Feb 2024	16 Nov 2023	25 Sep 2023	
Oil Age         hrs         Client Info         N/A         N/A         N/A         N/A           Oil Changed         Client Info         N/A         N/A         N/A         N/A           Sample Status         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         ≥20         0         0         <1	Machine Age	hrs	Client Info		0	0		
NORMAL   NORMAL   NORMAL   NORMAL	Oil Age	hrs	Client Info		0	0	0	
NORMAL   NORMAL   NORMAL   NORMAL	Oil Changed		Client Info		N/A	N/A	N/A	
Iron					NORMAL	NORMAL	NORMAL	
Chromium         ppm         ASTM D5185m         >20         <1	WEAR METALS		method	limit/base	current	history1	history2	
Nickel         ppm         ASTM D5185m         >20         0         <1	Iron	ppm	ASTM D5185m	>20	0	0	<1	
Description	Chromium	ppm	ASTM D5185m	>20	<1	0	0	
Silver	Nickel	ppm	ASTM D5185m	>20	0	<1	0	
Aluminum	Titanium	ppm	ASTM D5185m		0	0	0	
Lead	Silver	ppm	ASTM D5185m		0	0	0	
Copper         ppm         ASTM D5185m         >20         2         2         3           Tin         ppm         ASTM D5185m         >20         <1         2         2           Vanadium         ppm         ASTM D5185m         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0           Boron         ppm         ASTM D5185m         0         0         0           Barium         ppm         ASTM D5185m         0         0         0           Molybdenum         ppm         ASTM D5185m         0         0         0           Magnesium         ppm         ASTM D5185m         78         82         76           Calcium         ppm         ASTM D5185m         78         82         76           Calcium         ppm         ASTM D5185m         3         2         1           Phosphorus         ppm         ASTM D5185m         4         4         8           Zinc         ppm         ASTM D5185m         0         0         3           CONTAMINANTS         method         limit/base         current         history1         history2 <tr< th=""><th>Aluminum</th><th>ppm</th><th>ASTM D5185m</th><th>&gt;20</th><th>0</th><th>&lt;1</th><th>0</th></tr<>	Aluminum	ppm	ASTM D5185m	>20	0	<1	0	
Tin	Lead	ppm	ASTM D5185m	>20	2	2	3	
Tin         ppm         ASTM D5185m         >20         <1	Copper	ppm	ASTM D5185m	>20	2	2	3	
Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           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         -1         0         0         0           Magnesium         ppm         ASTM D5185m         78         82         76         0           Calcium         ppm         ASTM D5185m         3         2         1         1           Phosphorus         ppm         ASTM D5185m         4         4         8         2         76           Calcium         ppm         ASTM D5185m         0         0         3         2         1         1         1         1         1         1         1         1         1         1         1         1         2         0         0         3         2         1<	Tin	ppm	ASTM D5185m	>20	<1	2	2	
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	0	0	
Boron   ppm   ASTM D5185m   0   0   0   0	Cadmium	ppm	ASTM D5185m		0	0	0	
Barium	ADDITIVES		method	limit/base	current	history1	history2	
Molybdenum         ppm         ASTM D5185m         0         0         0           Manganese         ppm         ASTM D5185m         <1	Boron	ppm	ASTM D5185m		0	0	0	
Manganese         ppm         ASTM D5185m         <1	Barium	ppm	ASTM D5185m		0	0	<1	
Magnesium         ppm         ASTM D5185m         78         82         76           Calcium         ppm         ASTM D5185m         3         2         1           Phosphorus         ppm         ASTM D5185m         4         4         8           Zinc         ppm         ASTM D5185m         0         0         3           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         0         <1         <1           Sodium         ppm         ASTM D5185m         0         2         0           Potassium         ppm         ASTM D5185m         >20         0         <1         <1           Water         %         ASTM D6304         >2         0.008         0.014         0.026           ppm Water         ppm         ASTM D6304         >2         0.008         0.014         0.026           ppm Water         ppm         ASTM D8045         0.413         0.364         0.407           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar	Molybdenum	ppm	ASTM D5185m		0	0	0	
Calcium         ppm         ASTM D5185m         3         2         1           Phosphorus         ppm         ASTM D5185m         4         4         8           Zinc         ppm         ASTM D5185m         0         0         3           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         0         <1         <1           Sodium         ppm         ASTM D5185m         0         2         0           Potassium         ppm         ASTM D5185m         >20         0         <1         <1           Water         %         ASTM D6304         >2         0.008         0.014         0.026           ppm Water         ppm         ASTM D6304         >2         0.008         0.014         0.026           ppm Water         ppm         ASTM D6304         89         148         263.3           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         0.413         0.364         0.407           VISUAL         <	Manganese	ppm	ASTM D5185m		<1	0	0	
Phosphorus         ppm         ASTM D5185m         4         4         8           Zinc         ppm         ASTM D5185m         0         0         3           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         0         <1         <1           Sodium         ppm         ASTM D5185m         0         2         0           Potassium         ppm         ASTM D5185m         20         0         <1         <1           Water         %         ASTM D6304         >2         0.008         0.014         0.026           ppm Water         ppm         ASTM D6304         89         148         263.3           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         0.413         0.364         0.407           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Y	Magnesium	ppm	ASTM D5185m		78	82	76	
Zinc         ppm         ASTM D5185m         0         0         3           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         0         <1         <1           Sodium         ppm         ASTM D5185m         >20         0         <1         <1           Sodium         ppm         ASTM D5185m         >20         0         <1         <1           Water         %         ASTM D6304         >2         0.008         0.014         0.026           ppm Water         ppm         ASTM D6304         89         148         263.3           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg K0H/g         ASTM D8045         0.413         0.364         0.407           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         N	Calcium	ppm	ASTM D5185m		3	2	1	
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         0         <1         <1           Sodium         ppm         ASTM D5185m         >20         0         <1         <1           Potassium         ppm         ASTM D5185m         >20         0         <1         <1           Water         %         ASTM D6304         >2         0.008         0.014         0.026           ppm Water         ppm         ASTM D6304         >2         0.008         0.014         0.026           ppm Water         ppm         ASTM D6304         89         148         263.3           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg K0H/g         ASTM D8045         0.413         0.364         0.407           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual	Phosphorus	ppm	ASTM D5185m		4	4	8	
Silicon         ppm         ASTM D5185m         >15         0         <1	Zinc	ppm	ASTM D5185m		0	0	3	
Sodium         ppm         ASTM D5185m         0         2         0           Potassium         ppm         ASTM D5185m         >20         0         <1         <1           Water         %         ASTM D6304         >2         0.008         0.014         0.026           ppm Water         ppm         ASTM D6304         89         148         263.3           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         0.413         0.364         0.407           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         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 <th>CONTAMINANTS</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	CONTAMINANTS		method	limit/base	current	history1	history2	
Potassium         ppm         ASTM D5185m         >20         0         <1	Silicon	ppm	ASTM D5185m	>15	0	<1	<1	
Water         %         ASTM D6304         >2         0.008         0.014         0.026           ppm Water         ppm         ASTM D6304         89         148         263.3           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         0.413         0.364         0.407           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE           Precipitate         scalar         *Visual         NONE         NONE         NONE           Silt         scalar         *Visual         NONE         NONE         NONE           Debris         scalar         *Visual         NONE         NONE         NONE           Sand/Dirt         scalar         *Visual         NORML         NORML         NORML         NORML           Odor         scalar         *Visual         NORML         NORML         NORML         NORML	Sodium	ppm	ASTM D5185m		0	2	0	
ppm WaterppmASTM D630489148263.3FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHlgASTM D80450.4130.3640.407VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	Potassium	ppm	ASTM D5185m	>20	0	<1	<1	
FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 0.413 0.364 0.407  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE 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  NORML NORML	Water	%	ASTM D6304	>2	0.008	0.014	0.026	
Acid Number (AN) mg KOHg ASTM D8045 0.413 0.364 0.407  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  Sand/Dirt scalar *Visual NONE NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML NORML  Odor scalar *Visual NORML NORML NORML NORML	ppm Water	ppm	ASTM D6304		89	148	263.3	
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 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	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		0.413	0.364	0.407	
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	VISUAL		method	limit/base	current	history1	history2	
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								
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	Yellow Metal			NONE	NONE			
Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	•		*Visual	NONE	NONE	NONE	NONE	
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	Silt		*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	
Emulsified Water scalar *Visual >2 NEG NEG NEG	Odor	scalar	*Visual	NORML	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>2	NEG	NEG	NEG	

NEG

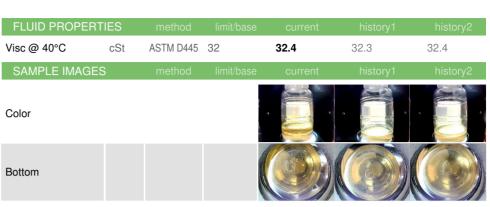
SWEGitted By: JONESLAZEY

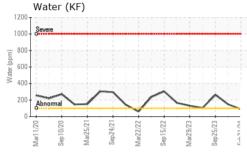


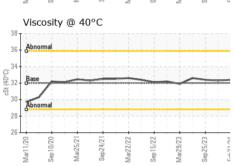
# **OIL ANALYSIS REPORT**



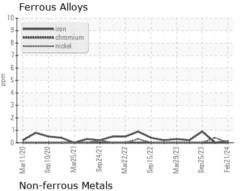


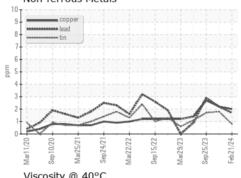


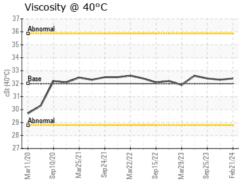


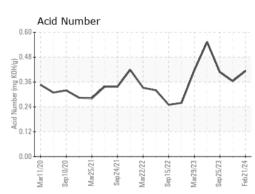


## **GRAPHS**













Certificate L2367

Laboratory Sample No.

: RP0025895 Lab Number : 06101694 Unique Number : 10899924 Test Package : PLANT

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 27 Feb 2024 : 29 Feb 2024 **Tested** 

: 29 Feb 2024 - Don Baldridge Diagnosed

**ENERGY TRANSFER - TOLEDO** 

2549 BROWN ROAD OREGON, OH US 43616

T: (419)389-7403

Contact: DARREN GRANT

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)

F: