WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

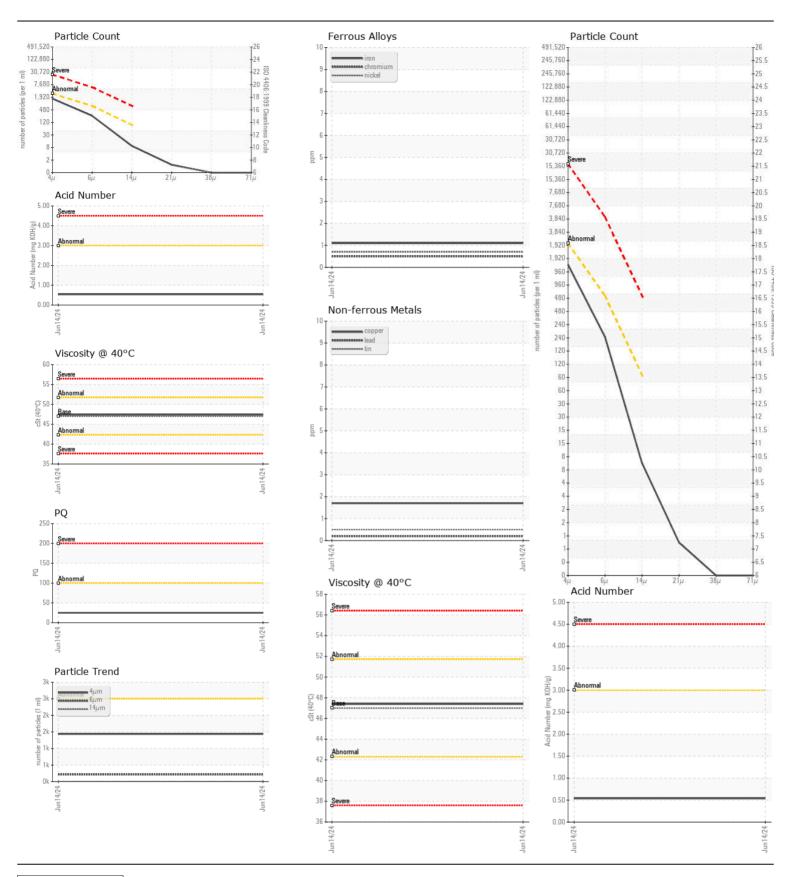
[05W47130]

SE 718R-HD 718.5.2315

Hydraulic System

PANOLIN HLP SYNTH 46 (60 GAL)

Machine Age hrs Client Info 233 Coll Age hrs Client Info 233 Coll Changed hrs Client Info 233 Changed Changed Changed Changed Changed Changed Changed Changed Chromium ppm ASTM D5185m >0 <1 Chromium ppm ASTM D5185m >10 <1 Chromium ppm ASTM D5185m >10 <1 Chromium ppm ASTM D5185m >10 <1 Copper ppm ASTM D5185m >10 <1 Changium ppm ASTM D5185m >10 <1 Changium ppm ASTM D5185m >10 <1 Changed ppm ASTM D5185m >10 <1 Changed ppm ASTM D5185m >10 <1 Chromium ppm ASTM D5185m >10 <1 Chr	PANOLIN HLP SYNTH 46 (60 GAL)							
Sample Number Collect Info JR020859	RECOMMENDATION	Test	UOM	Method	I imit/Abn	Current	History1	History2
Resample Date Comment: SHELL PANOLIN 46 Synthetic Comment: SHELL	TIEGOWIWENDATION							
Machine Age Inst Client Info 233	Resample at the next service interval to monitor. (Customer Sample Comment: SHELL PANOLIN 46 Synthetic)							
Oil Age		·	hrs					
Filter Age		•						
Oil Changed Cilent Info Changed Change								
Filter Changed Glient Into Changed Cha		•						
NORTH								
PQ		_						
Iron								
All component wear rates are normal. Chromium	WEAR							
Nickel ppm ASTM D5185m >10	All component wear rates are normal.	Iron	ppm	ASTM D5185m	>20	1		
Titanium ppm ASTM D5185m 0			ppm			<1		
Silver ppm ASTM D5185m 0 2					>10			
Aluminum ppm ASTM 05185m >10 2			ppm					
Lead								
Copper								
Tin								
Vanadium ppm ASTM D5185m NONE NONE								
White Metal Scalar *Visual NONE NO					>10			
Vellow Metal Scalar Visual NONE NONE Silicon ppm ASTM D5185m >20 <1 Potassium ppm ASTM D5185m >20 <1 Water WC Method >0.05 NEG Particles >4µm ASTM D7647 >2500 1438 Particles >14µm ASTM D7647 >2640 217 Particles >21µm ASTM D7647 >20 1 Particles >21µm ASTM D7647 >20 1 Particles >31µm ASTM D7647 >3 0 Particles >31µm ASTM D7647 >3 0 Particles >31µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Particles >31µm ASTM D7647 >3 0 Particles >31µm ASTM D7647 >3 0 Particles >71µm					NONE	_		
Silicon ppm ASTM D5185m >20 2								
Potassium ppm ASTM D5185m 2-0 <1 Water wC Method >0.0.5 NEG Particles > ASTM D7647 >2500 1438 Particles > ASTM D7647 >640 217 Particles > ASTM D7647 >640 217 Particles > Particles			Scalai	VISUAI	INOINE	INONE		
Potassium ppm ASTM D5185m 2-0 <1 Water WC Method >0.05 NEG Particles >4µm ASTM D7647 >2500 1438 Particles >6µm ASTM D7647 >640 217 Particles >14µm ASTM D7647 >640 217 Particles >14µm ASTM D7647 >640 217 Particles >21µm ASTM D7647 >640 217 Particles >38µm ASTM D7647 >640 217 Particles >38µm ASTM D7647 >640 1 Particles >38µm ASTM D7647 >640 0 Particles >21µm ASTM D7647 >640 0	CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	2		
Particles >4 \(\mu\)		Potassium	ppm	ASTM D5185m	>20	<1		
Particles >9µm	The amount and size of particulates present in the system are acceptable.	Water		WC Method	>0.05	NEG		
Particles >14µm		Particles >4µm		ASTM D7647	>2500	1438		
Particles >21µm		Particles >6µm		ASTM D7647	>640	217		
Particles >38 µm		Particles >14μm		ASTM D7647	>80	8		
Particles > 71 µm		Particles >21μm		ASTM D7647	>20	1		
Oil Cleanliness ISO 4406 (c) 518/16/13 18/15/10						-		
Silt scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NORML N						-		
Debris Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NORML NORM								
Sand/Dirt Scalar *Visual NONE NONE NONE Appearance Scalar *Visual NORML NORM								
Appearance								
Odor Scalar *Visual NORML Emulsified Water Scalar *Visual >0.05 NEG								
Emulsified Water scalar *Visual >0.05 NEG								
Sodium ppm ASTM D5185m C Calcium Calcium ppm ASTM D5185m Calcium Calcium ppm ASTM D5185m Calcium Calcium Ppm ASTM D5185m Calcium Calcium Calcium Ppm ASTM D5185m Calcium Calcium Calcium Calcium Ppm ASTM D5185m Calcium Cal								
Boron ppm ASTM D5185m 0 0 Marganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 <1 Magnesium ppm ASTM D5185m 0 <1 Magnesium ppm ASTM D5185m 0 <1 Calcium ppm ASTM D5185m 0 <1 Phosphorus ppm ASTM D5185m 1700 1351 Zinc ppm ASTM D5185m 0 18 Sulfur ppm ASTM D5185m 1350 1618 Acid Number (AN) mg KOH/g ASTM D8045 0.54	<u></u>		Scalai	Visuai	>0.03			
Boron ppm ASTM D5185m 0 0 Marganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 <1 Magnesium ppm ASTM D5185m 0 <1 Magnesium ppm ASTM D5185m 0 <1 Calcium ppm ASTM D5185m 0 <1 Phosphorus ppm ASTM D5185m 1700 1351 Zinc ppm ASTM D5185m 0 18 Sulfur ppm ASTM D5185m 1350 1618 Acid Number (AN) mg KOH/g ASTM D8045 0.54	FLUID CONDITION	Sodium	ppm	ASTM D5185m		<1		
Molybdenum ppm ASTM D5185m 0 <1 Manganese ppm ASTM D5185m 0 <1 Magnesium ppm ASTM D5185m 0 <1 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 0 0 1351 Zinc ppm ASTM D5185m 0 18 Sulfur ppm ASTM D5185m 1350 1618 Acid Number (AN) mg KOH/g ASTM D8045 0.54	The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.				0	0		
Manganese ppm ASTM D5185m 0 <1 Magnesium ppm ASTM D5185m 0 <1 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 1700 1351 Zinc ppm ASTM D5185m 0 18 Sulfur ppm ASTM D5185m 1350 1618 Acid Number (AN) mg KOH/g ASTM D8045 0.54		Barium		ASTM D5185m	0	0		
Manganese ppm ASTM D5185m 0 <1		Molybdenum		ASTM D5185m	0	<1		
Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 1700 1351 Zinc ppm ASTM D5185m 0 18 Sulfur ppm ASTM D5185m 1350 1618 Acid Number (AN) mg KOH/g ASTM D8045 0.54		Manganese	ppm			<1		
Phosphorus ppm ASTM D5185m 1700 1351 Zinc ppm ASTM D5185m 0 18 Sulfur ppm ASTM D5185m 1350 1618 Acid Number (AN) mg KOH/g ASTM D8045 0.54		Magnesium	ppm	ASTM D5185m	0	<1		
Zinc ppm ASTM D5185m 0 18 Sulfur ppm ASTM D5185m 1350 1618 Acid Number (AN) mg KOH/g ASTM D8045 0.54		Calcium	ppm	ASTM D5185m	0	0		
Sulfur ppm ASTM D5185m 1350 1618 Acid Number (AN) mg KOH/g ASTM D8045 0.54		Phosphorus	ppm	ASTM D5185m	1700	1351		
Acid Number (AN) mg KOH/g ASTM D8045 0.54			ppm			18		
					1350			
Visc @ 40°C cSt ASTM D445 47.0 47.4		. ,						
		Visc @ 40°C	cSt	ASTM D445	47.0	47.4		





Laboratory Sample No. Lab Number Unique Number: 11084366

: JR0208569 : 06211502

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

Received : 17 Jun 2024 **Tested** Diagnosed

: 18 Jun 2024 : 18 Jun 2024 - Angela Borella JRE - MANASSAS PARK 9107 OWENS DRIVE MANASSAS PARK, VA US 20111

Test Package : CONST (Additional Tests: PQ) Contact: TECHNICIAN ACCOUNT Certificate L2367 catherine.anastasio@wearcheck.com 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: (703)631-4715

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