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Machine Id HITACHI 470LC HCMJAG60J00061632 Compor Left Swing Drive

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Sample Number Client Info JR0189700 JR0180700	GËAR OIL SAE 80W90 (GAL)							
Sample Date Client Ind 11 Jan 202 0.2 Cd 20.3 Machine Age File Client Ind 2491 2491 Oil Achage File Age File Client Ind 0 0 Oil Achaged File Client Ind Client Ind 0 0 Oil Changed Ind Client Ind Client Ind Nor Machine Oil Changed Ind Client Ind Nor Machine Nor Machine Sample Status File Age ASTM 05155 NOR 0 Alt< 22.2 VEAR PO ASTM 05155 NO 41 10 Vandum ppm ASTM 05155 NO 41 10 Noke ppm ASTM 05155 NO 0 1 Note ppm ASTM 05155 S0 0 0	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Date Client Ino 11 Jan 200 02 Oct 2020	Resample at the next service interval to monitor.	Sample Number		Client Info		JR0198400	JR0188766	
Oil Age hrs Client Info 2491 2491 Filter Age hrs Client Info 0 0 Oil Changed Client Info NA Nat Changed Sample Status Client Info NA Nat Changed VEAR PO ASTM D818 400 411 22 VICAN PO ASTM D818 400 41 22 VICAN PO ASTM D818 400 41 22 VICAN PO ASTM D818 400 41 VICAN PO ASTM D818 400 41 VICAN PO ASTM D8185 -00 0 Silver porn ASTM D8185 >50 0 0 Quantimum porn ASTM D8185 >20 0 Veilow Metal		Sample Date		Client Info		11 Jan 2024	02 Oct 2023	
Filter Age hrs Client Into 0 0 0 0 Oil Changed Client Into NA Not Changed No		Machine Age	hrs	Client Info		2491	2491	
Oil Changed Filter Changed Client Info Changed No Changed Chang		Oil Age	hrs	Client Info		2491	2491	
Filter Changed Client Info NA No Change Image Sample Status NORMAL NORMAL NORMAL NORMAL NORMAL Image VEAR PQ ASTM D8186 54.00 41 2.2 Valid component wear rates are normal. Iron pm ASTM D8186 51.0 0 0 Nokel ppm ASTM D8186 51.0 0 0 Nokel ppm ASTM D8186 51.0 0 0 Nokel ppm ASTM D8186 50 0 0 Nokel ppm ASTM D8186 520 0 0 Aluminum ppm ASTM D8186 50 0 0 Aluminum ppm ASTM D8186 50 0 0 Vanadium ppm ASTM D8186 50 0 0 <t< td=""><th>Filter Age</th><td>hrs</td><td>Client Info</td><td></td><th>0</th><td>0</td><td></td></t<>		Filter Age	hrs	Client Info		0	0	
Sample Status NORMAL NORMAL <th< td=""><th>Oil Changed</th><td></td><td>Client Info</td><td></td><th>Changed</th><td>Not Changd</td><td></td></th<>		Oil Changed		Client Info		Changed	Not Changd	
VEAR PQ ASTM D8184 11 10 Iron pm ASTM D8185m >400 41 220 Nickel ppm ASTM D8185m >10 <1		Filter Changed		Client Info		N/A	Not Changd	
Iron ppm ASTM 0518m >400 41 22 Chromium ppm ASTM 0518m >10		Sample Status				NORMAL	NORMAL	
Iron ppm ASTM 0518m >400 41 22 Chromium ppm ASTM 0518m >10	WEAR	PQ		ASTM D8184		11	10	
Chromium ppm ASTM D5185m >10 <1 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <	All component wear rates are normal.	Iron	ppm	ASTM D5185m	>400	41	22	
Nickel ppm ASTM D5185m >10 0 <1 Titanium ppm ASTM D5185m 0 <1		Chromium						
Titanium ppm ASTM D5185m 0 <1		Nickel		ASTM D5185m	>10	0	0	
Aluminum ppm ASTM D518sn >25 0 0 Lead ppm ASTM D518sn >50 0 0 Copper ppm ASTM D518sn >200 <1		Titanium	ppm	ASTM D5185m		0	<1	
Lead ppm ASTM D5185m >500 0 0 Copper ppm ASTM D5185m >200 <1		Silver	ppm	ASTM D5185m		0	0	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		Aluminum	ppm	ASTM D5185m	>25	0	0	
Tin ppm ASTM D5185m >10 0 0 Vanadium ppm ASTM D5185m 0 <1		Lead	ppm	ASTM D5185m	>50	0	0	
Vanadium pp ASTM D5185m 0 <1 White Metal scalar *Visual NONE NONE NONE NONE CONTAMINATION Silicon pp ASTM D5185m >50 3 2 CONTAMINATION Silicon pp ASTM D5185m >50 3 2 There is no indication of any contamination in the oil. Potassium pp ASTM D5185m >20 <1		Copper	ppm	ASTM D5185m	>200	<1	<1	
White Metal Yellow Metalscalar*VisualNONENONENONECONTAMINATIONSiliconppmASTM D5185m-5032PotassiumppmASTM D5185m>-0<1<1WaterVC Method-0.2NEGNONESilitonscalar*VisualNONENONE<Silitscalar*VisualNONENONEDebrisscalar*VisualNONENONE<Sand/Dirtscalar*VisualNONENONE<Appearancescalar*VisualNORENORE<COORDITIONScalar*VisualNORENORE<SodiumppmASTM D5185m>170<1<-1The condition of the oil is acceptable for the time in service.SodiumppmASTM D5185m1200<ManganeseppmASTM D5185m120<-1MangensiumppmASTM D5185m120<		Tin	ppm	ASTM D5185m	>10	0	0	
Yellow Metalscalar'VisualNONENONECONTAMINATIONSiliconppmASTM D5185m>5032There is no indication of any contamination in the oil.PotassiumppmASTM D5185m>20<1<1WaterWC Method>0.2NEGNEGNONENONESilitscalar'VisualNONENONENONEDebrisscalar'VisualNONENONENONESand/Dirtscalar'VisualNONENONENONEAppearancescalar'VisualNORMNORMLOdorscalar'VisualNORMNORMLThe condition of the oil is acceptable for the time in service.SodiumppmASTM D5185m>170<1<1BariumppmASTM D5185m1200<MalganeseppmASTM D5185m1200<		Vanadium	ppm	ASTM D5185m		0	<1	
Silicon ppm ASTM D5185m >50 3 2 Potassium ppm ASTM D5185m >20 <1		White Metal	scalar	*Visual	NONE	NONE	NONE	
PotassiumppmASTM D5185m>20<1		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Water WC Method >0.2 NEG NEG Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORE NORML NORML Odor scalar *Visual NORM NORML NORML NORML Emulsified Water scalar *Visual NORM NORML NORML Boron ppm ASTM D5185m >170 <1 <1 Molybdenum ppm ASTM D5185m 200 0 Manganese ppm ASTM D5185m 12 0 <1	CONTAMINATION	Silicon	ppm	ASTM D5185m	>50	3	2	
Water WC Method >0.2 NEG NEG Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NOR NORM NORML Odor scalar *Visual NOR NORM NORML Odor scalar *Visual NOR NORM NORML Emulsified Water scalar *Visual NOR NORML NORML TUID CONDITION Sodium ppm ASTM D5185m >17.0 <1 -1 Boron ppm ASTM D5185m 20.0 0.0 < Molybdenum ppm ASTM D5185m 20.0 0.0 < Magnesium ppm ASTM D5185m 12 0.0 <1	There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	<1	<1	
Debrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*VisualNORNORMLNORMLSodiumppmASTM D5185m>170BoronppmASTM D5185m2000BariumppmASTM D5185m2000ManganeseppmASTM D5185m120MagnesiumppmASTM D5185m120<		Water		WC Method	>0.2	NEG	NEG	
Sand/Dirtscalar*VisualNONENONENONEIAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLIOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLICodorscalar*VisualNORMLNORMLNORMLNORMLIEmulsified Waterscalar*Visual>0.2NEGNEGSodiumppmASTM D5185m>170<1		Silt	scalar	*Visual	NONE	NONE	NONE	
Appearance scalar *Visual NORML NO NO NO		Debris	scalar	*Visual	NONE	NONE	NONE	
Odorscalar*VisualNORMLNORMLNORMLNORMLIEmulsified Waterscalar*Visual>0.2NEGNEGNEGSodiumppmASTM D5185m>170<1		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Emulsified Waterscalar*Visual>0.2NEGNEGSodiumppmASTM D5185m>170<1<1<1BoronppmASTM D5185m400<188BariumppmASTM D5185m20000MolybdenumppmASTM D5185m120<1<1ManganeseppmASTM D5185m120<1MagnesiumppmASTM D5185m120<1		Appearance	scalar	*Visual	NORML	NORML	NORML	
Sodium ppm ASTM D5185m >170 <1 <1 Boron ppm ASTM D5185m 400 <1		Odor	scalar	*Visual	NORML	NORML	NORML	
Boron ppm ASTM D5185m 400 <1 8 Barium ppm ASTM D5185m 200 0 0 Molybdenum ppm ASTM D5185m 12 0 <1		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Boron ppm ASTM D5185m 400 <1 8 Barium ppm ASTM D5185m 200 0 0 Molybdenum ppm ASTM D5185m 12 0 <1	FLUID CONDITION	Sodium	ppm	ASTM D5185m	>170	<1	<1	
Barium ppm ASTM D5185m 200 0 0 Molybdenum ppm ASTM D5185m 12 0 <1	The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185m	400	<1	8	
Manganese ppm ASTM D5185m 0 <1 Magnesium ppm ASTM D5185m 12 0 0		Barium	ppm	ASTM D5185m	200	0	0	
Magnesium ppm ASTM D5185m 12 0 0		Molybdenum	ppm	ASTM D5185m	12	0	<1	
		Manganese	ppm	ASTM D5185m		0	<1	
Calcium ppm ASTM D5185m 150 3 4		Magnesium	ppm	ASTM D5185m	12	0	0	
		Calcium	ppm	ASTM D5185m	150	3	4	

Phosphorus

Visc @ 40°C

Zinc

Sulfur

ppm

ppm

ppm

cSt

Report Id: JAMCHA [WUSCAR] 06063054 (Generated: 01/19/2024 20:07:48) Rev: 1

Submitted By: Mike Young - CHARLOTTE SHOP

335

18916

142

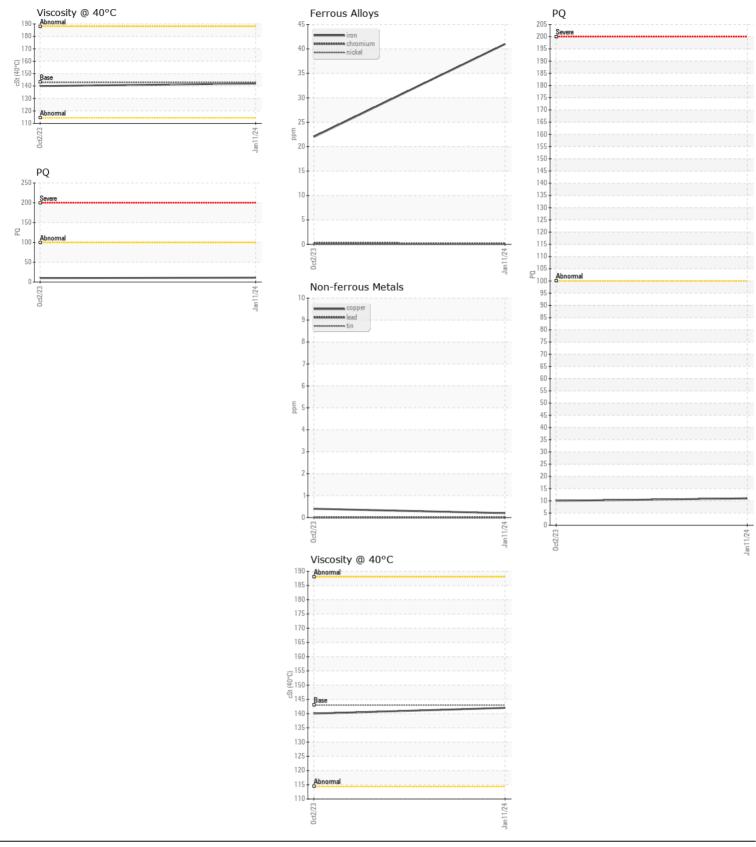
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ASTM D5185m 1650

ASTM D5185m 125

ASTM D5185m 22500

ASTM D445 143



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 **JRE - CHARLOTTE** Sample No. : JR0198400 Recieved : 17 Jan 2024 9550 STATESVILLE ROAD Lab Number : 06063054 Diagnosed : 18 Jan 2024 CHARLOTTE, NC : 10834436 Unique Number Diagnostician : Sean Felton US 28269 Test Package : CONST (Additional Tests: PQ) Contact: Chuck Sorrow Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. JSorrow@jamesriverequipment.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (704)596-6198

Submitted By: Mike Young - CHARLOTTE SHOP