

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL



AMR-Cheyenne 143343-1217 LIEBHERR LH60M 143343-1217

Power Take Off

LIEBHERR GEAR BASIC 90 LS (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

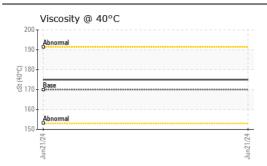
There is no indication of any contamination in the oil.

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

TestUOMMethodLimit/AnCurrentHistory1History2Sample NumberClient InfoJJJ0017330Sample DateClient Info21 Jun 2024Machine AgehrsClient Info0Filter AgehrsClient Info0Filter AgehrsClient InfoOFilter AgehrsClient InfoChangedFilter ChangedClient InfoN/AFilter ChangedClient InfoN/AFilter ChangedClient InfoN/AFilter ChangedClient InfoN/ASample StatusNORIMALNickelppmASTM D5185m>00NickelppmASTM D5185m>00SilverppmASTM D5185m>100AluminumppmASTM D5185m>00VanadiumppmASTM D5185m>100VanadiumppmASTM D5185m>200VanadiumppmASTM D5185m>200VanadiumppmASTM D5185m>20VanadiumppmASTM D5185m>20 <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<>							
Sample DateClient Info21 Jun 2024Machine AgehrsClient Info3196Oil AgehrsClient Info0Filter AgehrsClient InfoChangedOil ChangedClient InfoN/AFilter ChangedClient InfoN/AFilter ChangedClient InfoN/ASample StatusVNORMALIronppmASTM D5185m<>2005NickelppmASTM D5185m0NickelppmASTM D5185mAluminumppmASTM D5185m-50-1AluminumppmASTM D5185m>2001VanadiumppmASTM D5185m>100VanadiumppmASTM D5185m>2001Yellow Metalscalar*VisualNONENONESiliconppmASTM D5185m>20Yellow Metalscalar*VisualNONENONESiliconppmASTM D5185m>20Yellow Metalscalar*VisualNONENONESiliconppmASTM D5185m>20 <td< th=""><th>Test</th><th>UOM</th><th>Method</th><th>Limit/Abn</th><th>Current</th><th>History1</th><th>History2</th></td<>	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age hrs Client Info 3196 Dil Age hrs Client Info 0 Filter Age hrs Client Info 0 Dil Changed Client Info N/A Filter Changed Client Info N/A Sample Status Visual NORMAL Iron ppm ASTM D5185n >200 5 Nickel ppm ASTM D5185n >10 0 Aluminum ppm ASTM D5185n >50 <1 Aluminum ppm ASTM D5185n >50 0 Aluminum ppm ASTM D5185n >50 0 Vanadium ppm ASTM D5185n >50 0 Yellow Metal scalar<	Sample Number		Client Info		DJJ0017330		
Oil Age hrs Client Info 0 Filter Age hrs Client Info 0 Oil Changed Client Info N/A Filter Changed Client Info N/A Sample Status NORMAL Iron ppm ASTM D5185n >10 0 Chromium ppm ASTM D5185n >10 0 Nickel ppm ASTM D5185n >10 0 Aluminum ppm ASTM D5185n >50 <1 Lead ppm ASTM D5185n >200 1 Vanaduum ppm ASTM D5185n >200 1 Valed scalar 'Visual NONE NONE Silicon ppm ASTM D5185n	Sample Date		Client Info		21 Jun 2024		
Filter Age hrs Client Info O Glient Info Changed Filter Changed Client Info NAA Sample Status NORMAL Iron ppm ASTM D5185m >200 5 Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m 0 Silver ppm ASTM D5185m >50 <1 Aluminum ppm ASTM D5185m >50 0 Copper ppm ASTM D5185m >50 0 Vanadium ppm ASTM D5185m >50 0 Vanadium ppm ASTM D5185m >50 0 Vanadium ppm ASTM D5185m >20 1 Vanadium ppm ASTM D5185m >20	Machine Age	hrs	Client Info		3196		
Oil Changed Client Info Changed Filter Changed Client Info N/A Sample Status NORMAL Iron ppm ASTM D5185m<>200 5 Chromium ppm ASTM D5185m<>10 0 Nickel ppm ASTM D5185m 0 Titanium ppm ASTM D5185m 0 Silver ppm ASTM D5185m 50 <11 Aluminum ppm ASTM D5185m 50 0 Copper ppm ASTM D5185m 50 0 Vanadium ppm ASTM D5185m 50 0 Yellow Metal scalar 'Visual NONE NONE Silicon ppm ASTM D5185m 50 0 Yellow Metal scalar 'Visual NONE Silicon ppm AS	Oil Age	hrs	Client Info		0		
Filter Changed Sample Status Client Info N/A Iron ppm ASTM D5185m >200 5 Chromium ppm ASTM D5185m >200 5 Nickel ppm ASTM D5185m 0 Nickel ppm ASTM D5185m 0 Silver ppm ASTM D5185m >0 Auminum ppm ASTM D5185m >50 0 Lead ppm ASTM D5185m >50 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >50 0 Vanadium ppm ASTM D5185m >20 <-1	Filter Age	hrs	Client Info		0		
Sample Status NORMAL Iron ppm ASTM D5185m >200 5 Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m 0 Tittanium ppm ASTM D5185m 0 0 Aluminum ppm ASTM D5185m >50 0 Lead ppm ASTM D5185m >50 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0	Oil Changed		Client Info		Changed		
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Titanium ppm ASTM D5185m 0 Silver ppm ASTM D5185m < <1 Aluminum ppm ASTM D5185m >50 0 Lead ppm ASTM D5185m >50 0 Copper ppm ASTM D5185m >200 1 Tin ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m S0 0 Vanadium ppm ASTM D5185m >50 0 Yellow Metal scalar 'Visual NONE NONE Silicon ppm ASTM D5185m <t< th=""><th></th><th></th><th></th><th></th><th>-</th><th></th><th></th></t<>					-		
Silver ppm ASTM D5185m <1					-		
Aluminum ppm ASTM D5185m >50 <1					-		
Lead ppm ASTM D5185m >50 0 Copper ppm ASTM D5185m >200 1 Tin ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m >50 0 Vater WC Method >0.1 NEG Silt scalar *Visual NONE NONE Debris scalar *Visual NOR NORE Appearance scalar *Visual NORM NORML Sodium ppm ASTM D5185m	Aluminum			>50			
Copper ppm ASTM D5185m >200 1 Tin ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m >10 0 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m >50 0 Potassium ppm ASTM D5185m >20 <1 Water WC Method >0.1 NEG Sadd/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Godr scalar *Visual NORML NORML Godr scalar							
Tin ppm ASTM D5185m >10 0 Vanadium ppm ASTM D5185m <	Copper		ASTM D5185m	>200	1		
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White Metal Yellow Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONESiliconppmASTM D5185m>500PotassiumppmASTM D5185m>20<1WaterWC Method>0.1NEGSiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNORENONEAppearancescalar*VisualNORENORMLOdorscalar*VisualNORMLNORMLSodiumppmASTM D5185m0<1BoronppmASTM D5185m00MalybdenumppmASTM D5185m00ManganeseppmASTM D5185m<1<1ManganesiumppmASTM D5185m<1<1PhosphorusppmASTM D5185m<137SulfurppmASTM D5185m<137MagnesiumppmASTM D5185m<137PhosphorusppmASTM D5185m<137<	Vanadium		ASTM D5185m		<1		
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Potassium ppm ASTM D5185m >20 <1	Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium ppm ASTM D5185m >20 <1							
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Sand/Dirt scalar *Visual NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG Sodium ppm ASTM D5185m 0 <1 Boron ppm ASTM D5185m 0 <1 Barium ppm ASTM D5185m 0 < Molybdenum ppm ASTM D5185m 0 < Magnesium ppm ASTM D5185m <1 <1 Calcium ppm ASTM D5185m <1 25 Phosphorus ppm ASTM D5185m <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th>					-		
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Emulsified Water scalar *Visual >0.1 NEG Sodium ppm ASTM D5185m 3 Boron ppm ASTM D5185m 0 <1 Barium ppm ASTM D5185m 0 <1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m <1 <1 Phosphorus ppm ASTM D5185m <1 215 Phosphorus ppm ASTM D5185m 2143 2275 Zinc ppm ASTM D5185m <1 37 Sulfur ppm ASTM D5185m 23468 28504				NONE	NONE		
Sodium ppm ASTM D5185m 3 Boron ppm ASTM D5185m 0 <1 Barium ppm ASTM D5185m 0 <1 Barium ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m <1 <1 Calcium ppm ASTM D5185m <1 <25 Phosphorus ppm ASTM D5185m <1 2275 Zinc ppm ASTM D5185m <1 37 Sulfur ppm ASTM D5185m 23468 28504	Appearance	scalar	*Visual	NONE	NONE NORML		
Boron ppm ASTM D5185m 0 <1	Appearance Odor	scalar scalar	*Visual *Visual	NORML NORML	NONE NORML NORML		
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Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m <1	Appearance Odor Emulsified Water Sodium	scalar scalar scalar ppm	*Visual *Visual *Visual ASTM D5185m	NONE NORML NORML >0.1	NONE NORML NORML NEG 3		
Magnesium ppm ASTM D5185m <1	Appearance Odor Emulsified Water Sodium Boron	scalar scalar scalar ppm ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m	NONE NORML >0.1	NONE NORML NORML NEG 3 <1	 	
Calcium ppm ASTM D5185m <1	Appearance Odor Emulsified Water Sodium Boron Barium	scalar scalar scalar ppm ppm ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML >0.1 0 0	NONE NORML NORML NEG 3 <1 0	 	
Phosphorus ppm ASTM D5185m 2143 2275 Zinc ppm ASTM D5185m <1	Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	scalar scalar scalar ppm ppm ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML >0.1 0 0 0	NONE NORML NEG 3 <1 0 0		
Zinc ppm ASTM D5185m <1	Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	scalar scalar scalar ppm ppm ppm ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NORME NORML >0.1 0 0 0 0	NONE NORML NEG 3 <1 0 0 0		
Sulfur ppm ASTM D5185m 23468 28504	Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	scalar scalar ppm ppm ppm ppm ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML >0.1 0 0 0 0 0 2	NONE NORML NORML NEG 3 <1 0 0 0 0 0		
	Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar ppm ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML >0.1 0 0 0 0 0 0 1 2 1	NONE NORML NORML NEG 3 <1 0 0 0 0 <1 25		
Visc @ 40°C cSt ASTM D445 170 175	Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	scalar scalar ppm ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML >0.1 0 0 0 0 0 1 <1 <1 2143	NONE NORML NEG 3 <1 0 0 0 0 <1 25 2275		
	Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	*Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE NORML >0.1 0 0 0 0 0 <1 <1 2143 <1	NONE NORML NORML NEG 3 <1 0 0 0 <1 25 2275 37		

Contact/Location: BRIAN JACOBS - ADVKANKS



Ferrous Alloys 10 bpm 0 Non-ferrous Metals 10 lead ШQ in21/24 Viscosity @ 40°C 195 190 185 180 ္မ်ာ 175 စ္ ^ਲੋਂ 170 165 160 155 Al 150 Jun21/24

ADVANTAGE METALS RECYCLING - CHEYENNE : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 27 Jun 2024 1015 S. PACKARD ST Tested : 28 Jun 2024 KANSAS CITY, KS Diagnosed : 28 Jun 2024 - Wes Davis US 66105 Contact: BRIAN JACOBS BRIAN.JACOBS@ADVANTAGERECYCLING.COM T: (816)808-4711 F:



Test Package : CONST Certificate L2367 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)

Laboratory

Sample No.

Lab Number : 06222917

Unique Number : 11101114

: DJJ0017330

Contact/Location: BRIAN JACOBS - ADVKANKS Page 2 of 2