

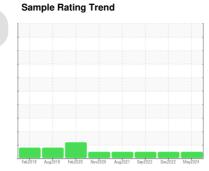
OIL ANALYSIS REPORT



KANSAS/44/EG - DOZER 35.13L [KANSAS^44^EG - DOZER]

Right Hydraulic System

MOBIL MOBILTRANS AST 30 (--- GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

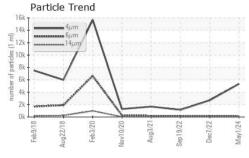
Fluid Condition

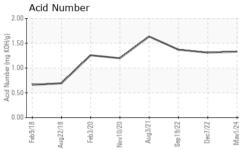
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

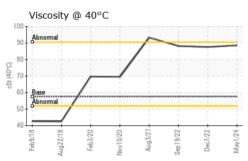
Sample Date Client Info O1 May 2024 07 Dec 2022 19 Sep 2022 Machine Age hrs Client Info O	AOTOO (GAL)						
Sample Date Client Info 01 May 2024 07 Dec 2022 19 Sep 2022 Machine Age hrs Client Info 5247 5247 5189	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 4385 4689 4689	Sample Number		Client Info		WC0901178	WC0741766	WC0673625
Oil Age hrs Client Info Not Changd Nort Changd	Sample Date		Client Info		01 May 2024	07 Dec 2022	19 Sep 2022
Oil Changed Sample Status	Machine Age	hrs	Client Info		5247	5247	5189
CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 7 6 5 Chromium ppm ASTM D5185m >10 <1 0 0 Nickel ppm ASTM D5185m >10 <1 0 0 Sliver ppm ASTM D5185m >10 <1 0 <1 Aluminum ppm ASTM D5185m >10 2 2 3 Lead ppm ASTM D5185m >10 <1 <1 <1 Copper ppm ASTM D5185m >10 <1 <1 <1 Copper ppm ASTM D5185m >10 <1 0 0 Antimony ppm ASTM D5185m >10 <1 0	Oil Age	hrs	Client Info		0	4385	4639
CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 7 6 5 Chromium ppm ASTM D5185m >10 <1 0 <1 Nickel ppm ASTM D5185m >10 <1 0 <1 Alluminum ppm ASTM D5185m <1 0 <1 <1 Alluminum ppm ASTM D5185m >10 <1 <1 <1 <1 Alluminum ppm ASTM D5185m >10 <1 <1 <1 <1 Lead ppm ASTM D5185m >10 <1 <1 <1 <1 Copper ppm ASTM D5185m >10 <1 <1 <1 <1 <1 <1 <1 <t< th=""><th>Oil Changed</th><th></th><th>Client Info</th><th></th><th>Not Changd</th><th>Not Changd</th><th>Not Changd</th></t<>	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Water WC Method >0.1 NEG NEG NEG WEAR METALS method limil/base current history1 history2 Iron ppm ASTM D5185m >20 7 6 5 Chromium ppm ASTM D5185m >10 <1 0 <1 Nickel ppm ASTM D5185m >10 <1 0 <1 Silver ppm ASTM D5185m <1 0 <1 <1 Aluminum ppm ASTM D5185m >10 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 </th <th>Sample Status</th> <th></th> <th></th> <th></th> <th>NORMAL</th> <th>NORMAL</th> <th>NORMAL</th>	Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS method limil/base current history1 history2 Iron ppm ASTM D5185m >20 7 6 5 Chromium ppm ASTM D5185m >10 <1 0 <1 Nickel ppm ASTM D5185m >10 <1 0 <1 Silver ppm ASTM D5185m <1 0 <1 <1 Aluminum ppm ASTM D5185m >10 2 2 3 Lead ppm ASTM D5185m >10 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <0 <0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	CONTAMINATION	V	method	limit/base	current	history1	history2
Iron	Water		WC Method	>0.1	NEG	NEG	NEG
Chromium ppm ASTM D5185m >10 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >10 <1	Iron	ppm	ASTM D5185m	>20	7	6	5
Titanium ppm ASTM D5185m <1	Chromium	ppm	ASTM D5185m	>10	<1	0	<1
Silver	Nickel	ppm	ASTM D5185m	>10	<1	0	0
Aluminum	Titanium	ppm	ASTM D5185m		<1	0	
Lead ppm ASTM D5185m >10 <1 <1 <1 <1 Copper ppm ASTM D5185m >75 16 16 13 13 11 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	Silver	ppm	ASTM D5185m				
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Tin ppm ASTM D5185m >10 <1 0 0 Antimony ppm ASTM D5185m > Vanadium ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 2 Molybdenum ppm ASTM D5185m 0 0 0 2 Molybdenum ppm ASTM D5185m 0 0 0 2 Molybdenum ppm ASTM D5185m 0 0 0 2 Manganese ppm ASTM D5185m 0 0 0 2 Manganese ppm ASTM D5185m 0 0 0 0 2 Manganesium ppm ASTM D5185m 0 0 0 0 0 0 0 Manganesium ppm ASTM D5185m 0 0 0 0 0 0 0 0 0 Manganesium ppm ASTM D5185m 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		ppm					
Antimony ppm ASTM D5185m	Copper	ppm			-		
Vanadium ppm ASTM D5185m <1		ppm		>10			
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 32 30 28 Barium ppm ASTM D5185m 0 0 2 Molybdenum ppm ASTM D5185m <1	•						
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 32 30 28 Barium ppm ASTM D5185m 0 0 2 Molybdenum ppm ASTM D5185m <1 <1 <1 Manganese ppm ASTM D5185m 15 15 16 Magnesium ppm ASTM D5185m 2542 2653 2469 Phosphorus ppm ASTM D5185m 1004 959 949 Zinc ppm ASTM D5185m 1186 1161 1180 Sulfur ppm ASTM D5185m 4468 5012 4768 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 8 8 Sodium ppm ASTM D5185m >20 3 0 2 FLUID CLEANLINESS method limit/base <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>							
Boron ppm ASTM D5185m 32 30 28 Barium ppm ASTM D5185m 0 0 2 Molybdenum ppm ASTM D5185m <1	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 0 0 2 Molybdenum ppm ASTM D5185m <1 <1 <1 Manganese ppm ASTM D5185m <1 <1 <1 Magnesium ppm ASTM D5185m 15 16 Calcium ppm ASTM D5185m 2542 2653 2469 Phosphorus ppm ASTM D5185m 1004 959 949 Zinc ppm ASTM D5185m 1186 1161 1180 Sulfur ppm ASTM D5185m 4468 5012 4768 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 8 8 Sodium ppm ASTM D5185m >20 3 0 2 Potassium ppm ASTM D5185m >20 3 0 2 FLUID CLEANLINESS method limit/base curr	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m		32	30	28
Manganese ppm ASTM D5185m <1	Barium	ppm	ASTM D5185m		0	0	2
Magnesium ppm ASTM D5185m 15 15 16 Calcium ppm ASTM D5185m 2542 2653 2469 Phosphorus ppm ASTM D5185m 1004 959 949 Zinc ppm ASTM D5185m 1186 1161 1180 Sulfur ppm ASTM D5185m 4468 5012 4768 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 8 8 Sodium ppm ASTM D5185m >20 3 0 2 Potassium ppm ASTM D5185m >20 3 0 2 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >2500 93 163 122 Particles >6μm ASTM D7647 >640 12 12 14 Particles >21μm	Molybdenum	ppm	ASTM D5185m		<1	<1	<1
Calcium ppm ASTM D5185m 2542 2653 2469 Phosphorus ppm ASTM D5185m 1004 959 949 Zinc ppm ASTM D5185m 1186 1161 1180 Sulfur ppm ASTM D5185m 4468 5012 4768 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 8 8 Sodium ppm ASTM D5185m >20 3 0 2 Potassium ppm ASTM D5185m >20 3 0 2 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >2500 93 163 122 Particles >6μm ASTM D7647 >640 12 12 14 Particles >21μm ASTM D7647 >160 4 3 3	Manganese	ppm	ASTM D5185m		<1	<1	<1
Phosphorus ppm ASTM D5185m 1004 959 949 Zinc ppm ASTM D5185m 1186 1161 1180 Sulfur ppm ASTM D5185m 4468 5012 4768 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 8 8 Sodium ppm ASTM D5185m >20 3 0 2 Potassium ppm ASTM D5185m >20 3 0 2 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >2500 93 163 122 Particles >6μm ASTM D7647 >640 12 12 14 Particles >21μm ASTM D7647 >160 4 3 3 Particles >38μm ASTM D7647 >40 0 0 0 Particles >71	Magnesium	ppm	ASTM D5185m		15	15	16
Zinc ppm ASTM D5185m 1186 1161 1180 Sulfur ppm ASTM D5185m 4468 5012 4768 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 8 8 Sodium ppm ASTM D5185m >20 3 0 2 Potassium ppm ASTM D5185m >20 3 0 2 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 5340 2703 1152 Particles >6μm ASTM D7647 >2500 93 163 122 Particles >14μm ASTM D7647 >640 12 12 14 Particles >21μm ASTM D7647 >160 4 3 3 Particles >38μm ASTM D7647 >40 0 0 0 Particles >71μm ASTM D7	Calcium	ppm	ASTM D5185m		2542	2653	2469
Sulfur ppm ASTM D5185m 4468 5012 4768 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 8 8 Sodium ppm ASTM D5185m >20 3 0 2 Potassium ppm ASTM D5185m >20 3 0 2 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >340 2703 1152 Particles >6µm ASTM D7647 >2500 93 163 122 Particles >14µm ASTM D7647 >640 12 12 14 Particles >21µm ASTM D7647 >160 4 3 3 Particles >38µm ASTM D7647 >40 0 0 0 Particles >71µm ASTM D7647 >10 0 0 0	Phosphorus	ppm	ASTM D5185m			959	949
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 8 8 Sodium ppm ASTM D5185m <1 2 2 Potassium ppm ASTM D5185m >20 3 0 2 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 5340 2703 1152 Particles >6µm ASTM D7647 >2500 93 163 122 Particles >14µm ASTM D7647 >640 12 12 14 Particles >21µm ASTM D7647 >160 4 3 3 Particles >38µm ASTM D7647 >40 0 0 0 Particles >71µm ASTM D7647 >10 0 0 0	Zinc	ppm	ASTM D5185m		1186	1161	1180
Silicon ppm ASTM D5185m >20 9 8 8 Sodium ppm ASTM D5185m <1	Sulfur	ppm	ASTM D5185m		4468	5012	4768
Sodium ppm ASTM D5185m <1	CONTAMINANTS	;	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 3 0 2 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 5340 2703 1152 Particles >6μm ASTM D7647 >2500 93 163 122 Particles >14μm ASTM D7647 >640 12 12 14 Particles >21μm ASTM D7647 >160 4 3 3 Particles >38μm ASTM D7647 >40 0 0 0 Particles >71μm ASTM D7647 >10 0 0 0	Silicon	ppm	ASTM D5185m	>20	9	8	8
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 5340 2703 1152 Particles >6μm ASTM D7647 >2500 93 163 122 Particles >14μm ASTM D7647 >640 12 12 14 Particles >21μm ASTM D7647 >160 4 3 3 Particles >38μm ASTM D7647 >40 0 0 0 Particles >71μm ASTM D7647 >10 0 0 0	Sodium	ppm	ASTM D5185m				
Particles >4μm ASTM D7647 5340 2703 1152 Particles >6μm ASTM D7647 >2500 93 163 122 Particles >14μm ASTM D7647 >640 12 12 14 Particles >21μm ASTM D7647 >160 4 3 3 Particles >38μm ASTM D7647 >40 0 0 0 Particles >71μm ASTM D7647 >10 0 0 0	Potassium	ppm	ASTM D5185m	>20	3	0	2
Particles >6μm ASTM D7647 >2500 93 163 122 Particles >14μm ASTM D7647 >640 12 12 14 Particles >21μm ASTM D7647 >160 4 3 3 Particles >38μm ASTM D7647 >40 0 0 0 Particles >71μm ASTM D7647 >10 0 0 0	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >640 12 12 14 Particles >21μm ASTM D7647 >160 4 3 3 Particles >38μm ASTM D7647 >40 0 0 0 Particles >71μm ASTM D7647 >10 0 0	Particles >4µm		ASTM D7647		5340	2703	1152
Particles >21μm ASTM D7647 >160 4 3 3 Particles >38μm ASTM D7647 >40 0 0 0 Particles >71μm ASTM D7647 >10 0 0 0	Particles >6µm		ASTM D7647	>2500	93	163	
Particles >38μm ASTM D7647 >40 0 0 0 Particles >71μm ASTM D7647 >10 0 0 0	Particles >14μm						
Particles >71μm ASTM D7647 >10 0 0	Particles >21μm		ASTM D7647		4	3	3
	Particles >38μm				0	0	0
Oil Cleanliness ISO 4406 (c) >/18/16 20/14/11 19/15/11 17/14/11	Particles >71μm						
	Oil Cleanliness		ISO 4406 (c)	>/18/16	20/14/11	19/15/11	17/14/11

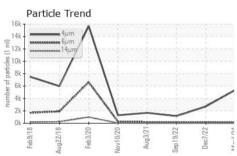


OIL ANALYSIS REPORT

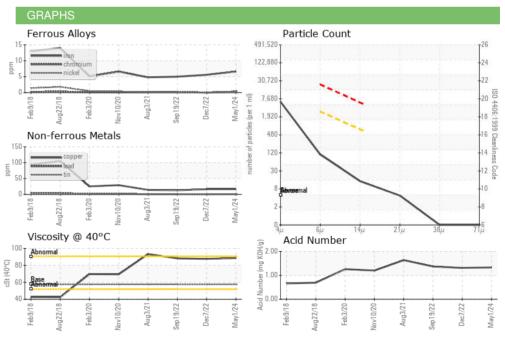
















Certificate 12367

Laboratory Sample No.

: WC0901178 Lab Number : 06175396 Unique Number : 11021449 Test Package : CONST

Bottom

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 10 May 2024 **Tested**

: 13 May 2024 Diagnosed : 13 May 2024 - Wes Davis

SHERWOOD CONSTRUCTION CO INC

3219 WEST MAY ST WICHITA, KS US 67213

Contact: DOUG KING doug.king@sherwood.net T: (316)617-3161

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