

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id HC2234 Component 1 Winch Fluid GEAR OIL ISO 220 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

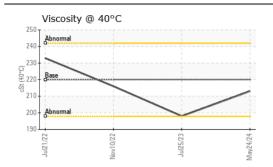
There is no indication of any contamination in the oil.

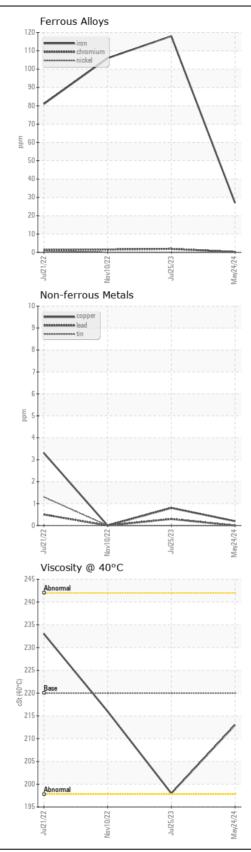
FLUID CONDITION

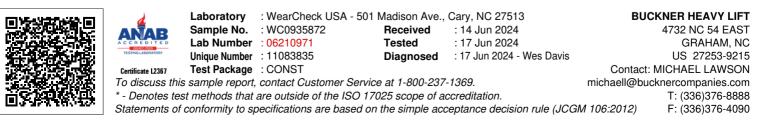
The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0935872	WC0809450	WC0556162
Sample Date		Client Info		24 May 2024	25 Jul 2023	10 Nov 2022
Machine Age	hrs	Client Info		4357	3265	2172
Oil Age	hrs	Client Info		1092	0	400
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Not Changd	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
Iron	nom	ASTM D5185m	>150	27	118	106
Chromium	ppm	ASTM D5185m	>10	<1	2	2
Nickel	ppm	ASTM D5105m	>10	0	0	0
Titanium	ppm	ASTM D5185m	>10	<1	<1	0
Silver	ppm	ASTM D5185m		<1 0	0	0
Aluminum	ppm		× 5	-	1	÷
Lead	ppm	ASTM D5185m ASTM D5185m	>5 >15	3 0	<1	0
	ppm	ASTM D5185m	>80	-		0
Copper Tin	ppm	ASTM D5185m	>00	<1 0	<1 0	0
	ppm			<1	<1	0
Vanadium White Metal	ppm scalar	ASTM D5185m *Visual	NONE		< I NONE	NONE
Yellow Metal		*Visual	NONE	NONE NONE		
	scalar	visuai	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	13	20	9
Potassium	ppm	ASTM D5185m	>20	2	3	2
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	LIGHT	NONE	MODER
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	SOLID
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2		NEG	NEG
				NEG	NEG	
Sodium						
Sodium	ppm	ASTM D5185m		<1	2	2
Boron	ppm	ASTM D5185m	50	<1 5	2 0	2 0
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m	50 15	<1 5 0	2 0 0	2 0 0
Boron Barium Molybdenum	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	50	<1 5 0 0	2 0 0 0	2 0 0 0
Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 15 15	<1 5 0 0 <1	2 0 0 0 2	2 0 0 0 1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 15 15 50	<1 5 0 0 <1 <1	2 0 0 2 2	2 0 0 1 <1
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 15 15 50 50	<1 5 0 0 <1 <1 5	2 0 0 2 2 4	2 0 0 1 <1 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 15 15 50 50 350	<1 5 0 0 <1 <1 5 392	2 0 0 2 2 4 347	2 0 0 1 <1 2 184
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 15 15 50 50 350 100	<1 5 0 0 <1 <1 5 392 45	2 0 0 2 2 4 347 33	2 0 0 1 <1 2 184 33
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 15 15 50 50 350	<1 5 0 0 <1 <1 5 392	2 0 0 2 2 4 347	2 0 0 1 <1 2 184

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