

WEAR ABNORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL



VOLVO EC380E C380E311738

Swing Drive

GEAR OIL LS 80W90 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

Gear wear is indicated.

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		JR0205837	JR0188895	JR0178904
Sample Date		Client Info		24 Apr 2024	18 Oct 2023	01 Aug 2023
Machine Age	hrs	Client Info		6637	6129	5661
Oil Age	hrs	Client Info		508	5661	5661
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL
PQ		ASTM D8184			10	10
	2222		. 1000	44	16 1	12
Iron	ppm	ASTM D5185m	>1200			0
Chromium	ppm	ASTM D5185m	>10	▲ 11 .1	<1 0	0
Nickel	ppm	ASTM D5185m	>10	<1 -1		
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	- OF	0 2	0	0
Aluminum Lead	ppm	ASTM D5185m ASTM D5185m	>25		2 0	0
	ppm		>50	<1	-	
Copper	ppm	ASTM D5185m	>50	7	<1	<1
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		<1 NONE		
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>100	14	<1	<1
Potassium	nnm	AOTH DEADE	00	2		4
	ppm	ASTM D5185m	>20	2	2	1
Water	ppm	WC Method	>20	2 NEG	2 NEG	1 NEG
Water Silt	scalar					
		WC Method	>0.25	NEG	NEG	NEG
Silt	scalar	WC Method *Visual	>0.25 NONE	NEG NONE	NEG NONE	NEG NONE
Silt Debris	scalar scalar	WC Method *Visual *Visual	>0.25 NONE NONE	NEG NONE NONE	NEG NONE NONE	NEG NONE NONE
Silt Debris Sand/Dirt	scalar scalar scalar	WC Method *Visual *Visual *Visual	>0.25 NONE NONE NONE	NEG NONE NONE NONE	NEG NONE NONE NONE	NEG NONE NONE
Silt Debris Sand/Dirt Appearance	scalar scalar scalar scalar	WC Method *Visual *Visual *Visual *Visual	>0.25 NONE NONE NONE NORML	NEG NONE NONE NONE NORML	NEG NONE NONE NORE	NEG NONE NONE NORE
Silt Debris Sand/Dirt Appearance Odor	scalar scalar scalar scalar scalar	WC Method *Visual *Visual *Visual *Visual	>0.25 NONE NONE NORML NORML	NEG NONE NONE NONE NORML	NEG NONE NONE NONE NORML	NEG NONE NONE NONE NORML
Silt Debris Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar scalar scalar scalar ppm	WC Method *Visual *Visual *Visual *Visual *Visual	>0.25 NONE NONE NORML NORML	NEG NONE NONE NORML NORML NEG	NEG NONE NONE NORML NORML NEG	NEG NONE NONE NORML NORML NEG
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	scalar scalar scalar scalar scalar scalar	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>0.25 NONE NONE NORML >0.25	NEG NONE NONE NORML NORML NEG	NEG NONE NONE NORML NORML NEG	NEG NONE NONE NORML NORML NEG
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	scalar scalar scalar scalar scalar scalar ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>0.25 NONE NONE NORML >0.25	NEG NONE NONE NORML NORML NEG 0 286	NEG NONE NONE NORML NORML NEG 0	NEG NONE NONE NORML NORML NEG <1 0
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	scalar scalar scalar scalar scalar scalar ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>0.25 NONE NONE NORML >0.25	NEG NONE NONE NORML NORML NEG 0 286 1	NEG NONE NONE NORML NORML NEG 0 0 2	NEG NONE NONE NORML NORML NEG <1 0 0
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	scalar scalar scalar scalar scalar scalar ppm ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>0.25 NONE NONE NORML >0.25	NEG NONE NONE NORML NORML NEG 0 286 1 2	NEG NONE NONE NORML NORML NEG 0 0 <1 <1	NEG NONE NONE NORML NORML NEG <1 0 0 0
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>0.25 NONE NONE NORML NORML >0.25 150	NEG NONE NONE NORML NORML NEG 0 286 1 2 2 10	NEG NONE NONE NORML NORML NEG 0 0 <1 <1 <1 0	NEG NONE NONE NORML NORML NEG <1 0 0 0 0
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >0.25 NONE NORML NORML >0.25 150 10 	NEG NONE NONE NORML NORML NEG 0 286 1 2 2 10 2	NEG NONE NONE NORML NORML NEG 0 0 <1 <1 <1 0 1	NEG NONE NONE NORML NORML NEG <1 0 0 0 0 0 0 3
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >0.25 NONE NONE NORML >0.25 150 150 70 	NEG NONE NONE NORML NORML NEG 0 286 1 2 286 1 2 10 2 2 26	NEG NONE NONE NORML NORML NEG 0 0 <1 <1 <1 0 1 7	NEG NONE NONE NORML NORML NEG <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >0.25 NONE NONE NORML >0.25 150 150 10 70 2000 	NEG NONE NONE NORML NORML NEG 0 286 1 2 286 1 2 20 20 20 2187	NEG NONE NONE NORML NORML NEG 0 (1 <1 (1 (1 7 841	NEG NONE NONE NORML NORML NEG <1 0 0 0 0 0 0 0 3 5 5 334
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >0.25 NONE NORME NORML >0.25 150 10 70 2000 50 	NEG NONE NONE NORML NORML NEG 0 286 1 2 286 1 2 286 2187 19	NEG NONE NONE NORML NORML NEG 0 (1 <1 (1 (1 7 841 0	NEG NONE NONE NORML NORML NEG <1 0 0 0 0 0 0 0 0 3 5 5 334 8

Submitted By: Ray Benson



