

Ascendum Machinery/500 Hour CSA

VOLVO EC220E 310445

Right Travel

{not provided} (--- GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Please note that the oil was too thick to perform some of the normal laboratory tests.

WEAR

Gear wear is indicated.

CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate aluminasilicate (coarse dirt) ingress. There is a high concentration of water present in the oil.

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The oil is no longer serviceable due to the presence of contaminants.

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Test	UOM	Method	Limit/Abn	Curren	t)	History1	History2
Sample Number		Client Info		ASC0009	532		
Sample Date		Client Info		08 Jun 2	024		
Machine Age	days	Client Info		5552			
Oil Age	days	Client Info		5552			
Filter Age	days	Client Info		0			
Oil Changed		Client Info		Change	ed		
Filter Changed		Client Info		None			
Sample Status				SEVER	Е		
Iron	ppm	ASTM D5185m	>1200	A 2673	1		
Chromium	ppm	ASTM D5185m	>20	A 209			
Nickel	ppm	ASTM D5185m	>5	2 5	_		
Titanium	ppm	ASTM D5185m		127			
Silver	ppm	ASTM D5185m		0			
Aluminum	ppm	ASTM D5185m	>100	— 1195	,		
Lead	ppm	ASTM D5185m	>50	3			
Copper	ppm	ASTM D5185m	>50	55			
Tin	ppm	ASTM D5185m	>5	0			
Vanadium	ppm	ASTM D5185m		4			
White Metal	scalar	*Visual	NONE	NON	E		
Yellow Metal	scalar	*Visual	NONE	NON	E		
Silicon	maa	ASTM D5185m	>100	9443	;		
Silicon Potassium	ppm ppm	ASTM D5185m ASTM D5185m	>100 >20	▲ 9443 199	;		
Silicon Potassium Water	ppm ppm %	ASTM D5185m ASTM D5185m ASTM D6304	>100 >20 >0.25	 9443 199 1.64 	;		
Silicon Potassium Water ppm Water	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	>100 >20 >0.25 >2500	 9443 199 1.64 1640 	0		
Silicon Potassium Water ppm Water Silt	ppm ppm % ppm scalar	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *Visual	>100 >20 >0.25 >2500 NONE	 9443 199 1.64 1640 NON 	; 10 IE	 	
Silicon Potassium Water ppm Water Silt Debris	ppm ppm % ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual	>100 >20 >0.25 >2500 NONE NONE	 9443 199 1.64 1640 NON NON)0 IE	 	
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt	ppm ppm % ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual	>100 >20 >0.25 >2500 NONE NONE	 9443 199 1.64 1640 NON NON NON)0 E E	 	
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance	ppm ppm % ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual	>100 >20 >0.25 >2500 NONE NONE NONE	 9443 199 1.64 1640 NON NON NON NON)0 E E E		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor	ppm pm % ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual	 >100 >20 >0.25 >2500 NONE NONE NORML 	 9443 199 1.64 1640 NON NON NON NOR NOR NOR 	ie IE ML		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm pm % ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual	 >100 >20 >0.25 >2500 NONE NONE NORML >0.25 	 9443 199 1.64 1640 NON NON NON NOR 0.2% 	ie Ie Ie ML		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm % scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual	>100 >20 >2500 NONE NONE NONE NORML NORML >0.25	 9443 199 1.64 1640 NON NON NON NOR 0.2%) (E (E (E (M) (M) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm pm % scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>100 >20 >2500 NONE NONE NONE NORML >0.25	 9443 199 1.64 1640 NON NON NON NOR 0.2% 83 	io IE IE ML ML		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm pm % scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>100 >20 >0.25 >2500 NONE NONE NORML NORML >0.25	 9443 199 1.64 1640 NON NON NOR NOR 0.2% 83 31)0 E E E ML ,		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm pm % scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>100 >20 >2500 NONE NONE NORML NORML >0.25	 9443 199 1.64 1640 NON NON NOR 0.2% 83 31 0 	; IE IE ML ,		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm % % scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	 >100 >20 >2500 NONE NONE NONE NORML >0.25 	 9443 199 1.64 1640 NON NON NOR 0.2% 83 31 0 24 	; E E E ML S		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm pm % scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20 >2500 NONE NONE NORML NORML >0.25	 9443 199 1.64 1640 NON NON NOR NOR 0.2% 83 31 0 24 164 	i i i i i i i i i i i i i i i i i i i		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm pm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >100 >20 >2500 NONE NONE NORML NORML >0.25 	 9443 199 1.64 1640 NON NON NON NOR 0.2% 83 31 0 24 164 73 	; E E		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm % % scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >100 >20 >2500 NONE NONE NONE NORML >0.25 	 9443 199 1.64 1640 NON NON NOR 0.2% 83 31 0 24 164 73 187 	ie ie ML ML		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Barium Barium Malybdenum Manganese Magnesium Calcium	ppm % % scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20 >2500 NONE NONE NORML NORML >0.25	 9443 199 1.64 1640 NON NON NOR NOR 0.2% 83 31 0 24 164 73 187 363 	ie ie ie ML ML		
Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm pm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	 >100 >20 >2500 NONE NONE NORML NORML >0.25 	 9443 199 1.64 1640 NON NON NOR 00 24 164 73 187 363 32 	iE IE ML ML		

Submitted By: KARRINGTON RENDLEMAN

WEAR SEVERE CONTAMINATION SEVERE FLUID CONDITION NORMAL





Submitted By: KARRINGTON RENDLEMAN Page 2 of 2