

Machine Id **112244** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 40 (--- QTS)**

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm. Please specify the component make and model with your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

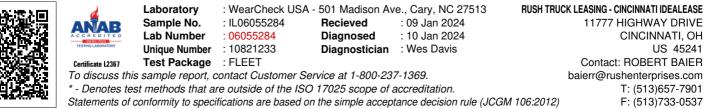
There is no indication of any contamination in the oil.

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test UOM Method Limit/Abn Current History1 History2 Sample Number Client Info 06 Dec 2023							
Sample Date Client Info 06 Dec 2023 Machine Age hrs Client Info 0 Filter Age hrs Client Info 0 Filter Age hrs Client Info N/A Filter Changed Client Info N/A Sample Status VirA Iron ppm ASTM D5185m >20 3 Chromium ppm ASTM D5185m >20 3 Silver ppm ASTM D5185m >20 2 Aluminum ppm ASTM D5185m >20 2 Aluminum ppm ASTM D5185m >330 3 Vanadium ppm ASTM D5185m >20 2 Vanadium ppm ASTM	Test	UOM	Method	Limit/Abn	Current	History1	History2
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Silver ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >20 2 Lead ppm ASTM D5185m >40 <1 Copper ppm ASTM D5185m >330 3 Vanadium ppm ASTM D5185m >15 1 Vanadium ppm ASTM D5185m >15 1 Yellow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m >20 2 Yellow Metal scalar *Visual NONE NONE Water WC Method >0.2 NEG Sott % % 'ASTM D7624 >20 13.3 Sulfation Abs/:m 'ASTM D7185	Nickel	ppm	ASTM D5185m	>4	1		
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Potassium ppm ASTM D5185m >20 2 Fuel WC Method >5 <1.0 Water WC Method >0.2 NEG Glycol WC Method NEG Soot % % *ASTM D7644 >3 1.6 Nitration Abs/.mm *ASTM D7624 >20 13.3 Sulfation Abs/.tmm *ASTM D7624 >20 13.3 Sulfation Abs/.tmm *ASTM D7624 >20 13.3 Sulfation Abs/.tm *ASTM D7624 >20 13.3 Sulfation Abs/.tm *ASTM D7624 >20 13.3 Sulfation Abs/.tmm *ASTM D715 >30 25.1 Sand/Dirt scalar *Visual		ooului	tiouui				
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Soot % % *ASTM D7844 >3 1.6 Nitration Abs/cm *ASTM D7624 >20 13.3 Sulfation Abs/cm *ASTM D7624 >20 13.3 Sulfation Abs/cm *ASTM D7615 >30 25.1 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Odor scalar *Visual >0.2 NEG Sodium ppm ASTM D5185m 250 4 Barium ppm ASTM D5185m 10 0 Magnesium ppm <th>Water</th> <th></th> <th>WC Method</th> <th>>0.2</th> <th>NEG</th> <th></th> <th></th>	Water		WC Method	>0.2	NEG		
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Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORLNORMLAppearancescalar*VisualNORLNORMLOdorscalar*VisualNORLNORMLEmulsified Waterscalar*Visual>0.2NEGSodiumppmASTM D5185m>2160BoronppmASTM D5185m2504BariumppmASTM D5185m100MolybdenumppmASTM D5185m10677MagnesiumppmASTM D5185m100677CalciumppmASTM D5185m1001195PhosphorusppmASTM D5185m11501055ZincppmASTM D5185m13501384SulfurppmASTM D5185m42504188OxidationAbs/.1mm*ASTM D5185m425022.1Base Number (BN)mg KOH/gASTM D28968.58.0	Nitration	Abs/cm	*ASTM D7624	>20	13.3		
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Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGSodiumppmASTM D5185m>2160BoronppmASTM D5185m2504BariumppmASTM D5185m100MolybdenumppmASTM D5185m10067MagnesiumppmASTM D5185m1001084CalciumppmASTM D5185m11501055PhosphorusppmASTM D5185m13501384ZincppmASTM D5185m42504188SulfurppmASTM D5185m425022.1Base Number (BN)mg KOH/gASTM D28668.58.0	Silt	scalar	*Visual	NONE	NONE		
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Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG Sodium ppm ASTM D5185m >216 0 Boron ppm ASTM D5185m 250 4 Barium ppm ASTM D5185m 10 0 Molybdenum ppm ASTM D5185m 100 67 Manganese ppm ASTM D5185m 100 67 Magnesium ppm ASTM D5185m 100 11 Calcium ppm ASTM D5185m 3000 1195 Zinc ppm ASTM D5185m 1350 1384 Sulfur ppm ASTM D5185m 4250 4188 Oxidation Abs/.1mm <th>Sand/Dirt</th> <th>scalar</th> <th>*Visual</th> <th>NONE</th> <th>NONE</th> <th></th> <th></th>	Sand/Dirt	scalar	*Visual	NONE	NONE		
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Molybdenum ppm ASTM D5185m 100 67 Manganese ppm ASTM D5185m 1 Magnesium ppm ASTM D5185m 450 1084 Calcium ppm ASTM D5185m 3000 1195 Phosphorus ppm ASTM D5185m 150 1055 Zinc ppm ASTM D5185m 1350 1384 Sulfur ppm ASTM D5185m 4250 4188 Oxidation Abs/.1mm *ASTM D2896 8.5 8.0	Boron	ppm	ASTM D5185m	250	4		
Manganese ppm ASTM D5185m 1 Magnesium ppm ASTM D5185m 450 1084 Calcium ppm ASTM D5185m 3000 1195 Phosphorus ppm ASTM D5185m 1150 10555 Zinc ppm ASTM D5185m 1350 1384 Sulfur ppm ASTM D5185m 4250 4188 Oxidation Abs/.1mm *ASTM D21868 8.5 8.0		ppm	ASTM D5185m	10	0		
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Calcium ppm ASTM D5185m 3000 1195 Phosphorus ppm ASTM D5185m 1150 1055 Zinc ppm ASTM D5185m 1350 1384 Sulfur ppm ASTM D5185m 4250 4188 Oxidation Abs/.1mm *ASTM D7414 >25 22.1 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.0	Manganese	ppm	ASTM D5185m		1		
Phosphorus ppm ASTM D5185m 1150 1055 Zinc ppm ASTM D5185m 1350 1384 Sulfur ppm ASTM D5185m 4250 4188 Oxidation Abs/.1mm *ASTM D7414 >25 22.1 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.0	Magnesium	ppm	ASTM D5185m	450	1084		
Zinc ppm ASTM D5185m 1350 1384 Sulfur ppm ASTM D5185m 4250 4188 Oxidation Abs/.1mm *ASTM D7414 >25 22.1 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.0	Calcium	ppm	ASTM D5185m	3000	1195		
Sulfur ppm ASTM D5185m 4250 4188 Oxidation Abs/.1mm *ASTM D7414 >25 22.1 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.0	Phosphorus	ppm	ASTM D5185m	1150	1055		
Oxidation Abs/.1mm *ASTM D7414 >25 22.1 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.0	Zinc	ppm	ASTM D5185m	1350	1384		
Base Number (BN) mg KOH/g ASTM D2896 8.5 8.0	Sulfur	ppm	ASTM D5185m	4250	4188		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	22.1		
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.0		
	Visc @ 100°C	cSt	ASTM D445	14.4	13.7		





Contact/Location: ROBERT BAIER - IDECIN