

Machine Id 689 Component Diesel Engine 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

Metal levels are typical for a new component breaking in.

CONTAMINATION

Elevated aluminum (AI) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

LUID 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		IL0026011		
Sample Date		Client Info		04 Jan 2024		
Machine Age	mls	Client Info		56127		
Oil Age	mls	Client Info		35718		
Filter Age	mls	Client Info		35718		
Oil Changed		Client Info		Changed		
Filter Changed		Client Info		Changed		
Sample Status				NORMAL		
Iron	ppm	ASTM D5185m	>100	32		
Chromium	ppm	ASTM D5185m	>20	2		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	55		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	161		
Tin	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m	-	0		
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
	304141	visual	NONL			
Silicon	ppm	ASTM D5185m	>25	9		
Potassium	ppm	ASTM D5185m	>20	94		
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
Soot %	%	*ASTM D7844	>3	1.4		
Nitration	Abs/cm	*ASTM D7624	>20	10.1		
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.6		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.2	NEG		
	Jouran	VISUUI	20.L			
Sodium	ppm	ASTM D5185m	>216	4		
Boron	ppm	ASTM D5185m	250	34		
Barium	ppm	ASTM D5185m	10	0		
Molybdenum	ppm	ASTM D5185m	100	47		
Manganese	ppm	ASTM D5185m		2		
Magnesium	ppm	ASTM D5185m	450	531		
Calcium	ppm	ASTM D5185m	3000	1618		
Phosphorus	ppm	ASTM D5185m	1150	833		
Zinc	ppm	ASTM D5185m	1350	991		
Sulfur	ppm	ASTM D5185m	4250	2590		
Oxidation	Abs/.1mm	*ASTM D3183111	>25	18.8		
Base Number (BN)		ASTM D7414 ASTM D2896	>25 8.5	7.2		
()	mg KOH/g					
Visc @ 100°C	cSt	ASTM D445	14.4	13.1		

WEAR

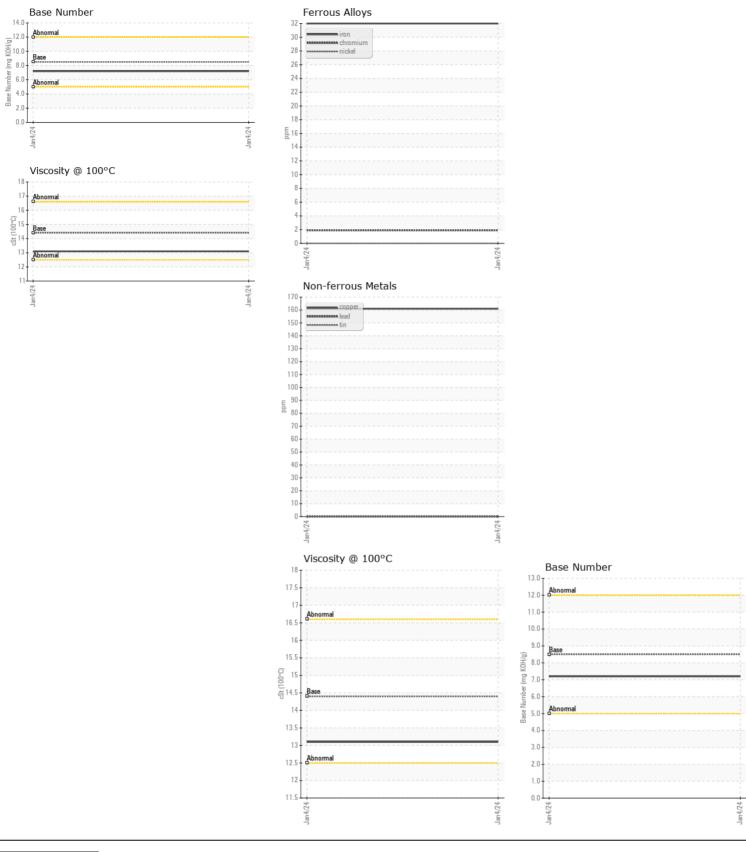
CONTAMINATION

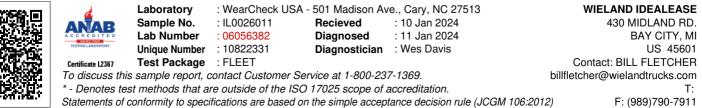
FLUID CONDITION

NORMAL

NORMAL

NORMAL





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Contact/Location: BILL FLETCHER - IDESAG

Page 2 of 2