

<b>MARINE DIESEL AND ENGINEERING</b>  Phone: _____ Email: _____ Fax: _____	Machine ID: EQUINOX Machine Year : NA  Component ID: D080172172 Component Make: ONAN Component Model: 19 MDK6V Component Year: NA Component Type : DIESEL ENGINE Component Location: GENSET  Sump Capacity: 2 Gallons	  <b>MOTORCHECK LAB</b> 2000 N FLORIDA MANGO RD 104 WEST PALM BEACH FL 33409 561-684-7799
<b>Component Description:</b>		

Sample ID	Date Taken	Hours on Component	Hours on Oil	Oil Weight	Oil Brand	Oil Type	Oil Changed	Date Analyzed	User Sample ID
28432	7/30/2024	1614	100	15W40	UNKNOWN	UNKNOWN	No	7/30/2024	
Comments: ALL ENGINE WEAR RATES NORMAL. SAMPLE APPEARS FREE OF EXTERNAL CONTAMINATION.									

Sample ID		Wear Metals (ppm)				Contaminant Metals (ppm)				Multi-Source Metals (ppm)				Additives (ppm)							
		Iron	Chromium	Aluminum	Copper	Lead	Tin	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Nickel	Manganese	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
28432		22	2	4	29	5	4	X	8	<2	<2	X	9	X	X	X	X	X	X	X	X

Sample ID		Contaminants						Physical Properties						
		Fuel	Soot	Water	Glycol	Nitration	TBN	Oxidation	V40C	V100C	VIndex	V40C Limit	V100C Limit	Visc Mode
28432		-	<0.1	<0.1	-	5.8	6.7	<2.0	109	13.5	122	92 - 124	12.5 - 16.3	C

<b>MARINE DIESEL AND ENGINEERING</b>  Phone: _____ Email: _____ Fax: _____	Machine ID: EQUINOX Machine Year : NA  Component ID: 69019148071878 Component Make: MAN Component Model: V12-1360 Component Year: NA Component Type : DIESEL ENGINE Component Location: PORT MAIN  Sump Capacity: 10 Gallons	  <b>MOTORCHECK LAB</b> 2000 N FLORIDA MANGO RD 104 WEST PALM BEACH FL 33409 561-684-7799
<b>Component Description:</b>		

Sample ID	Date Taken	Hours on Component	Hours on Oil	Oil Weight	Oil Brand	Oil Type	Oil Changed	Date Analyzed	User Sample ID
28433	7/30/2024	994	100	5W40	UNKNOWN	UNKNOWN	No	7/30/2024	
Comments: WITH NO SIGNIFICANT LEAD OR TIN PRESENT, COPPER MOST LIKELY FROM SOURCE OTHER THAN WEAR, POSSIBLY OIL ADDITIVE. SAMPLE APPEARS FREE OF EXTERNAL CONTAMINATION.									

Wear Metals (ppm)		Contaminant Metals (ppm)		Multi-Source Metals (ppm)		Additives (ppm)			
Sample ID	28433	Iron	27	Potassium	<2	Titanium	X	Calcium	X
		Chromium	<2	Sodium	9	Molybdenum	9	Magnesium	X
		Aluminum	2	Silicon	9	Nickel	X	Boron	X
		Copper	43	Vanadium	X	Manganese	X	Barium	X
		Lead	4	Tin	<2	Potassium	<2	Phosphorus	X
								Zinc	X

Contaminants		Physical Properties	
Sample ID	28433	Fuel	-
		Soot	<0.1
		Water	<0.1
		Glycol	-
		Nitration	6.2
		TBN	6.6
		Oxidation	<2.0
		V40C	89
		V100C	13.6
		VIndex	155
		V40C Limit	78.7 - 96.1
		V100C Limit	12.5 - 16.3
		Visc Mode	C

<b>MARINE DIESEL AND ENGINEERING</b>  Phone: _____ Email: _____ Fax: _____	Machine ID: EQUINOX Machine Year : NA  Component ID: 69019148091878 Component Make: MAN Component Model: V12-1360 Component Year: NA Component Type : DIESEL ENGINE Component Location: STARBOARD MAIN  Sump Capacity: 10 Gallons	  <b>MOTORCHECK LAB</b> 2000 N FLORIDA MANGO RD 104 WEST PALM BEACH FL 33409 561-684-7799
<b>Component Description:</b>		

Sample ID	Date Taken	Hours on Component	Hours on Oil	Oil Weight	Oil Brand	Oil Type	Oil Changed	Date Analyzed	User Sample ID
28434	7/30/2024	991	100	5W40	UNKNOWN	UNKNOWN	No	7/30/2024	
Comments: WITH NO SIGNIFICANT LEAD OR TIN PRESENT, COPPER MOST LIKELY FROM SOURCE OTHER THAN WEAR, POSSIBLY OIL ADDITIVE. SAMPLE APPEARS FREE OF EXTERNAL CONTAMINATION.									

Wear Metals (ppm)		Contaminant Metals (ppm)		Multi-Source Metals (ppm)		Additives (ppm)			
Sample ID	28434	Iron	19	Potassium	2	Titanium	X	Calcium	X
		Chromium	<2	Sodium	<2	Molybdenum	44	Magnesium	X
		Aluminum	<2	Silicon	7	Nickel	X	Boron	X
		Copper	61	Vanadium	X	Manganese	X	Barium	X
		Lead	4	Tin	3	Potassium	2	Phosphorus	X
						Sodium	<2	Zinc	X


Contaminants		Physical Properties	
Sample ID	28434	Fuel	-
		Soot	<0.1
		Water	<0.1
		Glycol	-
		Nitration	5.8
		TBN	6.7
		Oxidation	<2.0
		V40C	89
		V100C	13.6
		VIndex	156
		V40C Limit	78.7 - 96.1
		V100C Limit	12.5 - 16.3
		Visc Mode	C

<b>MARINE DIESEL AND ENGINEERING</b>  Phone: _____ Email: _____ Fax: _____	Machine ID: EQUINOX Machine Year : NA  Component ID: 20104211 Component Make: ZF Component Model: 665-A Component Year: NA Component Type : GEARBOX Component Location: PORT  Sump Capacity: 3 Gallons	  <b>MOTORCHECK LAB</b> 2000 N FLORIDA MANGO RD 104 WEST PALM BEACH FL 33409 561-684-7799
<b>Component Description:</b>		

Sample ID	Date Taken	Hours on Component	Hours on Oil	Oil Weight	Oil Brand	Oil Type	Oil Changed	Date Analyzed	User Sample ID
28435	7/30/2024	994	100	SAE 40	UNKNOWN	UNKNOWN	No	7/30/2024	
Comments: SUSPECT CLUTCH/DISC PACK DAMAGE. SAMPLE APPEARS FREE OF EXTERNAL CONTAMINATION. DRAIN OIL FROM UNIT IF NOT ALREADY DONE.									

Wear Metals (ppm)		Contaminant Metals (ppm)		Multi-Source Metals (ppm)		Additives (ppm)			
Sample ID	28435	Iron	22	Potassium	11	Titanium	X	Calcium	X
		Chromium	<2	Sodium	6	Molybdenum	27	Magnesium	X
		Aluminum	<2	Silicon	8	Nickel	X	Boron	X
		Copper	245	Vanadium	X	Manganese	X	Barium	X
		Lead	6	Tin	4	Potassium	11	Phosphorus	X
						Sodium	6	Zinc	X

Contaminants		Physical Properties	
Sample ID	28435	Fuel	X
		Soot	X
		Water	<0.1
		Glycol	-
		Nitration	X
		TBN	X
		Oxidation	4.8
		V40C	159
		V100C	14.4
		VIndex	87
		V40C Limit	133 - 181
		V100C Limit	12.5 - 16.3
		Visc Mode	C

<b>MARINE DIESEL AND ENGINEERING</b>  Phone: _____ Email: _____ Fax: _____	Machine ID: EQUINOX Machine Year : NA  <b>Component Description:</b>	Component ID: 20104210 Component Make: ZF Component Model: 665-A Component Year: NA Component Type : GEARBOX  Component Location: STARBOARD  Sump Capacity: 3 Gallons
		

Sample ID	Date Taken	Hours on Component	Hours on Oil	Oil Weight	Oil Brand	Oil Type	Oil Changed	Date Analyzed	User Sample ID
28436	7/30/2024	991	100	SAE 40	UNKNOWN	UNKNOWN	No	7/30/2024	
Comments: SUSPECT CLUTCH/DISC PACK DAMAGE. SAMPLE APPEARS FREE OF EXTERNAL CONTAMINATION. DRAIN OIL FROM UNIT IF NOT ALREADY DONE.									

Wear Metals (ppm)		Contaminant Metals (ppm)		Multi-Source Metals (ppm)		Additives (ppm)			
Sample ID	28436	Iron	23	Potassium	7	Titanium	X	Calcium	X
		Chromium	<2	Sodium	<2	Molybdenum	25	Magnesium	X
		Aluminum	<2	Silicon	8	Nickel	X	Boron	X
		Copper	322	Vanadium	X	Manganese	X	Barium	X
		Lead	8	Tin	7	Potassium	7	Phosphorus	X
						Sodium	<2	Zinc	X

Contaminants		Physical Properties	
Sample ID	28436	Fuel	X
		Soot	X
		Water	<0.1
		Glycol	-
		Nitration	X
		TBN	X
		Oxidation	<2.0
		V40C	157
		V100C	14.4
		VIndex	88
		V40C Limit	133 - 181
		V100C Limit	12.5 - 16.3
		Visc Mode	C