

MARINE DIESEL AND ENGINEERING

Machine ID: JOHNSON
Machine Year : NA

Component ID: H220126597
Component Make: ONAN
Component Model: 29 MDKDS
Component Year: NA
Component Type : DIESEL ENGINE
Component Location: GENERATOR

Phone:
Email:
Fax:

Component Description:

Sump Capacity: 6 Quarts



MOTORCHECK LAB
2000 N FLORIDA MANGO RD UNIT 104
WEST PALM BEACH FL 33409
561-684-7799

Sample ID	Date Taken	Hours on Component	Hours on Oil	Oil Weight	Oil Brand	Oil Type	Oil Changed	Date Analyzed	User Sample ID
9972	10/1/2026	225	100	15W40	UNKNOWN	UNKNOWN	No	10/1/2026	
Comments	ENGINE WEAR RATES NORMAL FOR BREAK-IN/OVERHAUL PERIOD. SILICON IS FROM ENGINE SEALANT (GASKET MATERIAL).								

	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
Sample ID	9972	30	<2	5	42	21	<2	X	32	44	26	X	49	X	X	X	X	X	X	X

	Contaminants				Physical Properties									
		Fuel	Soot	Water	Glycol	Nitration	TBN	Oxidation	V40C	V100C	VIndex	V40C Limit	V100C Limit	Visc Mode
		-	0.1	<0.1	-	2.4	9.1	4.2	110	14.4	134	92 - 124	12.5 - 16.3	C

ABNORMAL

SEVERE

D = DETECTED

- = NOT DETECTED

X = NOT TESTED / NOT APPLICABLE

NA = NOT AVAILABLE

C = CALCULATED

M = MEASURED

MARINE DIESEL AND ENGINEERING		Machine ID: JOHNSON Machine Year : NA		Component ID: JLE06578 Component Make: CATERPILLAR Component Model: C18 Component Year: NA Component Type : DIESEL ENGINE Component Location: PORT MAIN		 MOTORCHECK LAB 2000 N FLORIDA MANGO RD UNIT 104 WEST PALM BEACH FL 33409 561-684-7799	
Phone: Email: Fax: - - -		Component Description:				Sump Capacity: 12 Gallons	

Sample ID	Date Taken	Hours on Component	Hours on Oil	Oil Weight	Oil Brand	Oil Type	Oil Changed	Date Analyzed	User Sample ID
9973	10/1/2026	147	100	15W40	UNKNOWN	UNKNOWN	No	10/1/2026	
Comments	ENGINE WEAR RATES HIGHER THAN TYPICAL FOR BREAK-IN/OVERHAUL PERIOD. SAMPLE APPEARS FREE OF EXTERNAL CONTAMINATION.								

	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
9973	25	6	<2	61	9	14	X	9	13	17	X	37	X	X	X	X	X	X	X	X

	Contaminants				Physical Properties									
		Fuel	Soot	Water	Glycol	Nitration	TBN	Oxidation	V40C	V100C	VIndex	V40C Limit	V100C Limit	Visc Mode
		-	0.1	<0.1	-	3.8	8.4	3.8	110	14.4	134	92 - 124	12.5 - 16.3	C
	Sample ID													

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MARINE DIESEL AND ENGINEERING		Machine ID: JOHNSON Machine Year : NA		Component ID: JLE08624 Component Make: CATERPILLAR Component Model: C18 Component Year: NA Component Type : DIESEL ENGINE Component Location: STARBOARD MAIN		 MOTORCHECK LAB 2000 N FLORIDA MANGO RD UNIT 104 WEST PALM BEACH FL 33409 561-684-7799	
Phone: Email: Fax: - - -		Component Description:				Sump Capacity: 12 Gallons	

Sample ID	Date Taken	Hours on Component	Hours on Oil	Oil Weight	Oil Brand	Oil Type	Oil Changed	Date Analyzed	User Sample ID
9974	10/1/2026	147	100	15W40	UNKNOWN	UNKNOWN	No	10/1/2026	
Comments	ENGINE WEAR RATES HIGHER THAN TYPICAL FOR BREAK-IN/OVERHAUL PERIOD. SAMPLE APPEARS FREE OF EXTERNAL CONTAMINATION.								

	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
Sample ID	9974	10	13	63	8	5	X	9	4	17	X	37	X	X	X	X	X	X	X	X

	Contaminants				Physical Properties									
	Fuel	-			V40C	109	14.4	135	92 - 124	12.5 - 16.3	V100C Limit		Visc Mode	C
	Soot	<0.1			Nitration	3.8	8.0	<2.0			Oxidation			
	Water	<0.1			TBN									
	Glycol	-												
Sample ID	9974													

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MARINE DIESEL AND ENGINEERING

Machine ID: JOHNSON
Machine Year : NA

Component ID: 2569358
Component Make: TWIN DISC GEAR
Component Model: MGX-5136
Component Year: NA
Component Type : GEARBOX
Component Location: PORT
Sump Capacity: 2 Gallons

Phone:
Email:
Fax:

_____-_____-_____
_____-_____-_____
_____-_____-_____

Component Description:



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Sample ID	Date Taken	Hours on Component	Hours on Oil	Oil Weight	Oil Brand	Oil Type	Oil Changed	Date Analyzed	User Sample ID
9975	10/1/2026	147	147	SAE 40	UNKNOWN	UNKNOWN	No	10/1/2026	
Comments	GEAR UNIT WEAR RATES NORMAL. SAMPLE APPEARS FREE OF EXTERNAL CONTAMINATION. ANALYSIS INDICATES PROPER PERFORMANCE OF THE LUBRICANT AND UNIT.								

	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
Sample ID	21	8	<2	95	11	<2	X	7	<2	<2	X	106	X	X	X	X	X	X	X	X

	Physical Properties				Contaminants			
	Visc Mode	C						
	V100C Limit	12.5 - 16.3						
	V40C Limit	133 - 181						
	VIndex	88						
	V100C	14.4						
	V40C	157						
	Oxidation	<2.0						
	TBN	X						
	Nitration	X						
	Glycol	X						
	Water	<0.1						
	Soot	X						
	Fuel	X						
Sample ID	9975							

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