

OIL ANALYSIS REPORT

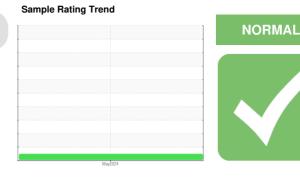
88-50

PAO lubricant PN 1630 1126 00 (S/N Hold down vacuum pump oil)

Pump

Fluid

{not provided} (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. (Customer Sample Comment: Batch sample for vacuum hold down pumps)

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

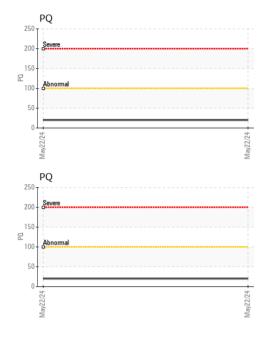
Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0845496		
Sample Date		Client Info		22 May 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		20		
Iron	ppm	ASTM D5185m	>90	0		
Chromium	ppm	ASTM D5185m	>5	<1		
Nickel	ppm	ASTM D5185m	>5	0		
Titanium	ppm	ASTM D5185m	>3	<1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>7	2		
Lead	ppm	ASTM D5185m	>12	<1		
Copper	ppm	ASTM D5185m	>30	<1		
Tin	ppm	ASTM D5185m	>9	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0		
Barium	ppm	ASTM D5185m		<1		
	ppm ppm	ASTM D5185m ASTM D5185m		<1 <1		
Molybdenum						
Molybdenum Manganese	ppm	ASTM D5185m		<1		
Molybdenum Manganese Magnesium	ppm	ASTM D5185m ASTM D5185m		<1 0		
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		<1 0 <1		
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 0 <1 0		
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 0 <1 0		
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<1 0 <1 0 8		
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >60	<1 0 <1 0 8 0		
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 0 <1 0 8 0 0 current	 history1	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185m MEthod ASTM D5185m		<1 0 <1 0 8 0 0 current	 history1	history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>60 >20	<1 0 <1 0 8 0 0 current <1 2	 history1	history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>60 >20	<1 0 <1 0 8 0 0 current <1 2	 history1	history2



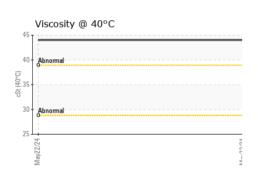
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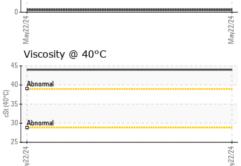
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>.1	NEG		
Free Water	scalar	*Visual		NEG		
FLUID PROPERT	TIES	method	limit/hase	current	history1	history2

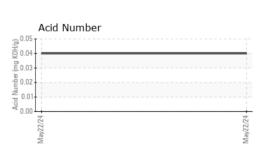
Visc @ 40°C	cSt	ASTM D445	44.0	

		,	,
Color		no image	no image
Bottom		no image	no image
GRAPHS			













Certificate 12367

Laboratory Sample No.

: WC0845496 Lab Number : 06196826 Unique Number : 11058949

Test Package : PLANT

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 31 May 2024 **Tested** : 04 Jun 2024

Diagnosed : 04 Jun 2024 - Jonathan Hester

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Submitted By: DAN HARRIS

THE BOEING COMPANY

NORTH CHARLESTON, SC

5400 AIRFRAME DR

US 29418