

OIL REPORT

LAB NUMBER: J95399 **REPORT DATE:** 2/6/2018

CLIENT ID: 94166

UNIT ID: N593MS-LH

CODE: 63/37 PAYMENT: CC: MC (Bulk)

MAKE/MODEL: Continental TSIO-360-EB1B FUEL TYPE: Gasoline (Leaded)

OIL TYPE & GRADE: Phillips (AC) 20W/50 Type M (Mineral OIL USE INTERVAL: 50 Hours

FUEL TYPE: Gasoline (Leaded) OIL USE INTERVAL: ADDITIONAL INFO: Piper PA34-200T, E/N: 265934R, Mixed Chrome + Steel cyls

FRANS DEBLOIS

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SMMENTS

FRANS: These engines have improved some this time around, though they aren't wearing alike so we won't try to compare them. We're assuming this engine just started flying again after a period of inactivity, so considering how much corrosion could be present, these numbers aren't too bad. Short oil changes should help clear some of the metal out of the system - aluminum is from pistons (or corrosion in the case) and chrome shows cylinder and maybe ring wear, assuming there are still chrome cylinders on board. Nickel could be from replacement cylinders or valve guide wear.

Sample Date 6/15/2017 AVERAGES A/20/2015 A/13/2004 12/5/2003 8/19/2003 A/21/2003 A/21/20		MI/HR on Oil	50		70	25	49		46	
Sample Date 6/15/2017 AVERAGES 4/20/2015 4/13/2004 12/5/2003 8/19/2003 4/21/2003 AVERAGES		MI/HR on Unit	2,240		2,150				1,612	UNIVERSAL
Make Up Oil Added		Sample Date	6/15/2017		4/20/2015	4/13/2004	12/5/2003	8/19/2003	4/21/2003	AVERAGES
CHROMIUM 31 28 60 24 27 22 22 28 28 28 28 28		Make Up Oil Added						8 qts		
CHROMIUM 31 28 60 24 27 22 22 28 60 24 27 22 22 28 60 24 27 22 22 28 60 24 27 28 28 60 24 27 28 28 28 28 28 28 28										
CHROMIUM 31 28 60 24 27 22 22 8 IRON 81 104 167 116 150 74 74 55 COPPER 8 4 16 3 4 3 3 3 ELEAD 6160 5864 8914 5259 7060 5935 6078 5457 TIN TIN 1 1 1 4 0 0 0 1 1 1 MOLYBDENUM 9 6 7 6 6 6 5 5 5 NICKEL 35 30 56 32 32 21 27 12 MANGANESE 1 2 3 2 3 2 21 27 12 MANGANESE 1 2 3 2 3 1 1 1 MANGANESE 1 1 2 3 2 3 1 1 1 SILVER 0 0 0 0 0 0 0 0 0 0 0 0 0 TITANIUM 0 0 0 2 0 0 0 0 0 0 0 TITANIUM 0 0 0 2 0 0 0 0 0 0 0 MAGNESIUM 1 1 1 1 2 0 0 1 1 0 MAGNESIUM 1 1 1 2 1 0 1 1 1 CALCIUM 8 1 1 4 0 0 0 1 1 1 MAGNESIUM 1 0 0 0 0 0 0 0 0 0 MAGNESIUM 1 0 0 0 0 0 0 0 0 0 MAGNESIUM 1 1 0 0 0 0 0 0 0 0 MAGNESIUM 1 1 0 0 0 0 0 0 0 0 0 MAGNESIUM 1 1 0 0 0 0 0 0 0 0 0 MAGNESIUM 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		ALUMINUM	24	9	28	9	11	8	7	4
COPPER 8	Ĭ	CHROMIUM	31	28	60	24	27	22	22	8
COPPER 8	Į	IRON	81	104	167	116	150	74	74	55
TIN		COPPER		4	_		4	3	3	5
MOLYBDENUM 9 6 7 6 6 5 5 5 32 32 21 27 12 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	品	LEAD	6160	5864	8914	5259	7060	5935	6078	5457
NICKEL 35 30 56 32 32 21 27 12 MANGANESE 1 2 3 2 3 1 1 1 1 SILVER 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Д	TIN	1	1	4	0	0	1	1	1
MANGANESE 1 2 3 2 3 1 1 1 2 3 2 3 1 1 1 1 2 3 1 2 3 1 1 1 1	S	MOLYBDENUM	9	6	7	6	6	5	5	3
SILVER	Ä	NICKEL	35	30	56	32	32	21	27	12
TITANIUM 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Δ.	MANGANESE	1	2	3	2	3	1	1	1
TITANIUM 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Z	SILVER	0	0	0	0	0	0	0	0
POTASSIUM 1 1 1 1 2 0 1 0 0 BORON 0 0 0 2 0 0 0 0 0 SILICON SILICON 18 10 14 9 8 6 4 5 SODIUM CALCIUM MAGNESIUM 1 0 0 0 0 0 0 0 MAGNESIUM 1 0 0 0 0 0 0 0 PHOSPHORUS 123 487 1486 756 774 213 133 865 ZINC 8 4 12 3 4 3 3 6		TITANIUM	0	0	2	0	0	0	0	0
SILICON 18 10 14 9 8 6 4 5 SODIUM 1 1 1 2 1 0 1 1 1 1 CALCIUM 8 1 4 0 0 0 1 1 1 1 0 MAGNESIUM 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Ĕ	POTASSIUM	1	1	1	2	0	1	0	1
SODIUM 1 1 1 2 1 0 1 1 1 0 1 1 1 1 1 1 1 1 1 1		BORON	0	0	2	0	0	0	0	1
SODIUM 1 1 1 2 1 0 1 1 1 0 1 1 1 1 1 1 1 1 1 1	≅	SILICON	18	10	14	9	8	6	4	5
CALCIUM 8 1 4 0 0 1 1 0 MAGNESIUM 1 0 0 0 0 0 0 0 2 PHOSPHORUS 123 487 1486 756 774 213 133 865 ZINC 8 4 12 3 4 3 3 6		SODIUM	1	1	2	1	0	1	1	1
PHOSPHORUS 123 487 1486 756 774 213 133 865 ZINC 8 4 12 3 4 3 3 6		CALCIUM	8	1	4	0	0	1	1	0
ZINC 8 4 12 3 4 3 3 6		MAGNESIUM	1	0	0	0	0	0	0	2
		PHOSPHORUS	123	487	1486	756	774	213	133	865
		ZINC	8	4	12	3	4	3	3	6
BARIUM 0 0 0 0 0 0 0 0 0 0		BARIUM	0	0	0	0	0	0	0	0

Values

Should Be*

SUS Viscosity @ 210°F	89.8	82-105	89.3	93.9	94.6	92.7	90.4
cSt Viscosity @ 100°C	17.93	16.0-21.8	17.81	18.91	19.07	18.62	18.07
Flashpoint in °F	445	>425	410	480	460	485	505
Fuel %	<0.5	<1.0	1.0	<0.5	<0.5	<0.5	<0.5
Antifreeze %	-		-	-	-	-	-
Water %	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Insolubles %	0.4	<0.6	0.6	0.5	0.5	0.6	0.5
TBN							
TAN						·	
ISO Code							

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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