

United States of America
Department of Transportation -- Federal Aviation Administration
Supplemental Type Certificate

Number SE03232CH

This certificate issued to

Tanis Aircraft Products
2951 100th Court NE Suite 150
Blaine, MN 55449-5126

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified herein meets the airworthiness requirements of Part * of the * Regulations.*

Original Product -- Type Certificate Number:

*See attached FAA Approved Model List (AML)

Make:

*No. SE03232CH for list of approved engine models and

Model:

*applicable airworthiness regulations

Description of Type Design Change:

Installation of Tanis Engine Preheat Kit, p/n TSP4CYL-2925-115 for 115 volt application in accordance with Engine Preheat Kit drawing # 02925-115, Revision A, dated April 25, 2013, or later FAA approved revisions or Installation of Tanis Engine Preheat Kit, p/n TSP4CYL-2925-230 for 230 volt application in accordance with Engine Preheat Kit drawing # 02925-230, Revision A, dated April 25, 2013, or later FAA approved revisions. Installation of Tanis Engine Preheat Kit, p/n TSP4CYL-3001-115 for 115 volt application in accordance with Engine Preheat Kit drawing # 03001-115, Revision C, dated April 10, 2014, or later FAA approved revisions or Installation of Tanis Engine Preheat Kit, p/n TSP4CYL-3001-230 for 230 volt application in accordance with Engine Preheat Kit drawing # 03001-230, Revision C, dated April 10, 2014, or later FAA approved revisions.

Limitations and Conditions:

1. Compatibility of this design change with previous modifications must be determined by the installer.
2. FAA accepted Instructions for Continued Airworthiness (ICA), Document # TICA2925, Revision A, dated May 25, 2013
FAA accepted Instructions for Continued Airworthiness (ICA), Document # TICA3001, Revision C, dated April 10, 2014, and Operating Guide TPG0001, Rev. F, dated April 11, 2014 or later FAA accepted revisions are required.
3. A copy of this certificate must be maintained as part of the permanent records for the modified engine.
4. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: April 29, 2013

Date reissued:

Date of issuance: June 26, 2013

Date amended: April 23, 2014; December 2, 2014

By direction of the Administrator



Michael Down
(Signature)

Timothy Smyth
Manager, Propulsion and Program Management Branch
Chicago Aircraft Certification Office

(Title)

FAA APPROVED MODEL LIST (AML) NO. SE03232CH
TANIS AIRCRAFT PRODUCTS
FOR
INSTALLATION OF ENGINE PREHEAT KIT

June 26, 2013

ITEM	ENGINE MAKE	ENGINE MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AML AMENDMENT DATE
					NUMBER	REVISION AND DATE	
1	Continental	A-40, A-40-2, A-40-3, A-40-4.	ATC 72	Approved Type Certificate No. 72	TNP2925	Rev. A * 4/26/2013	6/26/2013
2	Continental	A-40-5.	ATC 174	Approved Type Certificate No. 174	TNP2925	Rev. A * 4/26/2013	6/26/2013
3	Continental	A-50-1, A-50-2, A-50-3, A-50-4, A-50-4J, A-50-5, A-50-5J, A-50-6, A-50-6J, A-50-7, A-50-7J, A-50-8, A-50-8J, A-50-9, A-50-9J.	E-190	CAR 13	TNP2925	Rev. A * 4/26/2013	6/26/2013
4	Continental	A-65-1, A-65-12, A-65-12F, A-65-12FJ, A-65-12J, A-65-14, A-65-14F, A-65-14FJ, A-65-14J, A-65-3, A-65-6, A-65-6J, A-65-7, A-65-8 (O-170-3, O-170-7), A-65-8F, A-65-8FJ, A-65-8J, A-65-9 (O-170-5), A-65-9F, A-65-9FJ, A-65-9J.	E-205	CAR 13	TNP2925	Rev. A * 4/26/2013	6/26/2013
5	Continental	A75-3, A75-6, A75-6J, A75-8, A75-8F, A75-8FJ, A75-8J, A75-9, A75-9J.	E-213	Type Certificate No. 213	TNP2925	Rev. A * 4/26/2013	6/26/2013
6	Continental	C75-12, C75-12B, C75-12BF, C75-12BFH, C75-12F, C75-12FH, C75-12FHJ, C75-12FJ, C75-12J, C75-15, C75-15F, C75-8, C75-8F, C75-8FH, C75-8FHJ, C75-8FJ, C75-8J, C85-12, C85-12F, C85-12FH, C85-12FHJ, C85-12FJ, C85-12J, C85-14F, C85-15, C85-15F, C85-8, C85-8F, C85-8FHJ, C85-8FJ, C85-8J.	E-233	CAR 13	TNP2925	Rev. A * 4/26/2013	6/26/2013
7	Continental	C90-12F, C90-12FH, C90-12FJ, C90-12FP, C90-14F, C90-14FH, C90-14FJ, C90-16F, C90-8F, C90-8FJ, O-200-A, O-200-B, O-200-C, O-200-D, O-200-X.	E-252	CAR 13 (except O-200-D, O-200-X) Part 33 (O-200-D, O-200-X)	TNP2925	Rev. A * 4/26/2013	6/26/2013
8	Continental	IO-346-A, IO-346-B.	E3CE	CAR 13	TNP2925	Rev. A * 4/26/2013	6/26/2013
9	Continental	RR O-240-A.	E11EU	FAR 21.29 and British Civil Airworthiness Requirements, Section C, Issue 6	TNP2925	Rev. A * 4/26/2013	6/26/2013
10	Continental	IO-240-A, IO-240-B, IOF-240-B.	E7SO	14 CFR Part 33	TNP2925	Rev. A * 4/26/2013	6/26/2013
11	Continental	A-80-5J, A-80-8, A-80-8J, A-80-9, A-80-9J.	TC 217	Type Certificate No. 217	TNP2925	Rev. A * 4/26/2013	6/26/2013

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12	Lycoming	O-145-A1, O-145-A2.	TC 199	Type Certificate No. 199	TNP2925	Rev. A * 4/26/2013	6/26/2013
13	Lycoming	O-145-B1, O-145-B2, O-145-B3, O-145-C1, O-145-C2, GO-145-C1, GO-145-C2, GO-145-C3.	TC 210	Type Certificate No. 210	TNP2925	Rev. A * 4/26/2013	6/26/2013
14	Lycoming	O-233-A1, O-235, O-235-A, O-235-AP, O-235-B, O-235-BP, O-235-C, O-235-C1, O-235-C1A, O-235-C1B, O-235-C1C, O-235-C2A, O-235-C2B, O-235-C2C, O-235-E1, O-235-E1B, O-235-E2A, O-235-E2B, O-235-F1, O-235-F1B, O-235-F2A, O-235-F2B, O-235-G1, O-235-G1B, O-235-G2A, O-235-G2B, O-235-H2C, O-235-J2A, O-235-J2B, O-235-K2A, O-235-K2B, O-235-K2C, O-235-L2A, O-235-L2C, O-235-M1, O-235-M2C, O-235-M3C, O-235-N2A, O-235-N2C, O-235-P1, O-235-P2A, O-235-P2C, O-235-P3C.	E-223	CAR 13	TNP2925	Rev. A * 4/26/2013	6/26/2013
15	Lycoming	O-290, O-290-A, O-290-AP, O-290-B (O-290-1), O-290-C (O-290-3), O-290-CP, O-290-D (O-290-11), O-290-D2, O-290-D2A, O-290-D2B, O-290-D2C.	E-229	CAR 13	TNP2925	Rev. A * 4/26/2013	6/26/2013
16	Lycoming	O-320-A1A, O-320-A1B, O-320-A2A, O-320-A2B, O-320-A2C, O-320-A2D, O-320-A3A, O-320-A3B, O-320-A3C, O-320-B1A, O-320-B1B, O-320-B2A, O-320-B2B, O-320-B2C, O-320-B2D, O-320-B2E, O-320-B3A, O-320-B3B, O-320-B3C, O-320-C1A, O-320-C1B, O-320-C2A, O-320-C2B, O-320-C2C, O-320-C3A, O-320-C3B, O-320-C3C, O-320-D1A, O-320-D1B, O-320-D1C, O-320-D1D, O-320-D1F, O-320-D2A, O-320-D2B, O-320-D2C, O-320-D2F, O-320-D2G, O-320-D2H, O-320-D2J, O-320-D3G, O-320-E1A, O-320-E1B, O-320-E1C, O-320-E1F, O-320-E1J, O-320-E2A, O-320-E2B, O-320-E2C, O-320-E2D, O-320-E2F, O-320-E2G, O-320-E2H, O-320-E3D, O-320-E3H, O-320-H1AD, O-320-H1BD, O-320-H2AD, O-320-H2BD, O-320-H3AD, O-320-H3BD.	E-274	CAR 13	TNP2925	Rev. A * 4/26/2013	6/26/2013
17	Lycoming	IO-320-A1A, IO-320-A2A, IO-320-B1A, IO-320-B1B, IO-320-B1C, IO-320-B1D, IO-320-B1E, IO-320-B2A, IO-320-C1A, IO-320-C1B, IO-320-D1A, IO-320-D1B, IO-320-D1C, IO-320-E1A, IO-320-E1B, IO-320-E2A, IO-320-E2B, IO-320-F1A, LIO-320-B1A, LIO-320-C1A, AEIO-320-D1B, AEIO-320-D2B, AEIO-320-E1A, AEIO-320-E1B, AEIO-320-E2A, AEIO-320-E2B,	1E12	CAR 13	TNP2925	Rev. A * 4/26/2013	6/26/2013

FAA APPROVED MODEL LIST (AML) NO. SE03232CH
TANIS AIRCRAFT PRODUCTS
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					NUMBER	REVISION AND DATE	
17	Lycoming	AIO-320-A1A, AIO-320-A1B, AIO-320-A2A, AIO-320-A2B, AIO-320-B1B, AIO-320-C1B.	1E12	CAR 13	TNP2925	Rev. A * 4/26/2013	6/26/2013
18	Lycoming	O-340-A1A, O-340-A2A, O-340-B1A.	E-277	CAR 13	TNP2925	Rev. A * 4/26/2013	6/26/2013
19	Lycoming	O-360-A1A, O-360-A1AD, O-360-A1C, O-360-A1D, O-360-A1F, O-360-A1F6, O-360-A1F6D, O-360-A1G, O-360-A1G6, O-360-A1G6D, O-360-A1H, O-360-A1H6, O-360-A1LD, O-360-A1P, O-360-A2A, O-360-A2D, O-360-A2E, O-360-A2F, O-360-A2G, O-360-A2H, O-360-A3A, O-360-A3AD, O-360-A3D, O-360-A4A, O-360-A4AD, O-360-A4D, O-360-A4G, O-360-A4J, O-360-A4K, O-360-A4M, O-360-A4N, O-360-A4P, O-360-A5AD, O-360-B1A, O-360-B1B, O-360-B2A, O-360-B2B, O-360-B2C, O-360-C1A, O-360-C1C, O-360-C1E, O-360-C1F, O-360-C1G, O-360-C2A, O-360-C2B, O-360-C2C, O-360-C2D, O-360-C2E, O-360-C4F, O-360-C4P, O-360-D1A, O-360-D2A, O-360-D2B, O-360-E1A6D, O-360-E1AD, O-360-E1BD, O-360-E2AD, O-360-E2BD, O-360-F1A6 O-360-G1A6, O-360-J2A, LO-360-A1G6D, LO-360-A1H6, LO-360-E1A6D, LO-360-E1AD, LO-360-E1BD, LO-360-E2AD, LO-360-E2BD.	E-286	CAR 13	TNP2925	Rev. A * 4/26/2013	6/26/2013
20	Lycoming	AEIO-360-A1A, AEIO-360-A1B, AEIO-360-A1B6, AEIO-360-A1C, AEIO-360-A1D, AEIO-360-A1E, AEIO-360-A1E6, AEIO-360-A2A, AEIO-360-A2B, AEIO-360-A2C, AEIO-360-B1B, AEIO-360-B1D, AEIO-360-B1F, AEIO-360-B1F6, AEIO-360-B1G6, AEIO-360-B1H, AEIO-360-B2F, AEIO-360-B2F6, AEIO-360-B4A, AEIO-360-H1A, AEIO-360-H1B, AIO-360-A1A, AIO-360-A1B, AIO-360-A2A, AIO-360-A2B, AIO-360-B1B, HIO-360-A1A, HIO-360-A1B, HIO-360-B1A, HIO-360-B1B, HIO-360-C1A, HIO-360-C1B, HIO-360-D1A, HIO-360-E1AD, HIO-360-E1BD, HIO-360-F1AD, HIO-360-G1A, IO-360-A1A, IO-360-A1B, IO-360-A1B6, IO-360-A1B6D, IO-360-A1C, IO-360-A1D, IO-360-A1D6, IO-360-A1D6D, IO-360-A2A, IO-360-A2B, IO-360-A2C, IO-360-A3B6, IO-360-A3B6D, IO-360-A3D6D, IO-360-B1A, IO-360-B1B, IO-360-B1C, IO-360-B1D, IO-360-B1E, IO-360-B1F, IO-360-B1F6, IO-360-B1G6, IO-360-B2E, IO-360-B2F, IO-360-B2F6, IO-360-B4A, IO-360-C1A, IO-360-C1B, IO-360-C1C, IO-360-C1C6, IO-360-C1D6,	1E10	CAR 13 (Except LIO-360-MIA) 14 CFR Part 33 (LIO-360-MIA)	TNP2925	Rev. A * 4/26/2013	6/26/2013

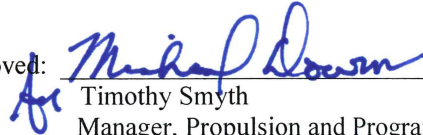
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June 26, 2013

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					NUMBER	REVISION AND DATE	
20	Lycoming	IO-360-C1E6, IO-360-C1E6D, IO-360-C1F, IO-360-C1G6, IO-360-D1A, IO-360-E1A, IO-360-F1A, IO-360-J1A6D, IO-360-J1AD, IO-360-K2A, IO-360-L2A, IO-360-M1A, IO-360-M1B, LHIO-360-C1A, LHIO-360-C1B, LHIO-360-F1AD, LIO-360-C1E6, LIO-360-M1A.	1E10	CAR 13 (Except LIO-360-MIA) 14 CFR Part 33 (LIO-360-MIA)	TNP2925	Rev. A * 4/26/2013	6/26/2013
21	Lycoming	TIO-360-A1A, TIO-360-A1B, TIO-360-A3B6, TIO-360-C1A6D.	E16EA	14 CFR Part 33	TNP2925	Rev. A * 4/26/2013	6/26/2013
22	Lycoming	TO-360-A1A6D, TO-360-C1A6D, TO-360-E1A6D, TO-360-F1A6D, LTO-360-A1A6D, LTO-360-E1A6D.	E26EA	14 CFR Part 33	TNP2925	Rev. A * 4/26/2013	6/26/2013
23	Lycoming	IO-390-A1A6, IO-390-A1B6, IO-390-A3A6, IO-390-A3B6, AEIO-390-A1A6, AEIO-390-A1B6, AEIO-390-A3A6, AEIO-390-A3B6.	E00006NY	14 CFR Part 33	TNP2925	Rev. A * 4/26/2013	6/26/2013
24	Austro	E4	E00081EN	14 CFR Part 33	TNP3001	Rev. C * 4/10/2014	12/2/2014

* Or later FAA approved revision

FAA Approved:


Timothy Smyth

Manager, Propulsion and Program Management Branch
Chicago Aircraft Certification Office

Amended: 12/2/2014