



U.S. Department
of Transportation
**Federal Aviation
Administration**

Southwest Region
Arkansas, Louisiana,
New Mexico, Oklahoma,
Texas

Manufacturing Inspection District Office
2601 Meacham Blvd., SW MIDO-42
Fort Worth, Texas 76137

March 17, 2011

Superior Air Parts, Inc.
621 S. Royal Lane, Suite 100
Coppell, Texas 75019

FEDERAL AVIATION ADMINISTRATION - PARTS MANUFACTURER APPROVAL

In accordance with the provisions of Title 14, Code of Federal Regulations (14 CFR), Part 21, Certification Procedures for Products and Parts, subpart K, the FAA has found that the design data, based on Test and Computation, submitted by Superior Air Parts, Inc., with your letter dated March 9, 2011, meets the airworthiness requirements of the regulations applicable to the products on which the parts are to be installed. Additionally, the FAA has determined that Superior Air Parts, Inc., has established the fabrication inspection system required by § 21.303(h) at 621 S. Royal Lane, Suite 100, Coppell, Texas 75019. Accordingly, Parts Manufacturer Approval (PMA) is hereby granted for production of the replacement parts listed in the enclosed Supplement No. 31, revision 2, dated March 17, 2011. Supplement No. 31, revision 2 replaces Supplement No. 31, revision 1.

You are reminded that the provisions of 14 CFR, Parts 21 and 45, noted in our PMA letter of approval dated March 30, 2006, also apply to the enclosed PMA Listing-Supplement No. 31, revision 2. The enclosed supplement should be retained with the original PMA letter as evidence of approval to produce the parts concerned.

Sincerely,

Carlton N. Cochran
Manager, Fort Worth Manufacturing Inspection District Office
SW MIDO-42

Enclosure
PMA Listing-Supplement No. 31, revision 2



U.S. Department
of Transportation
**Federal Aviation
Administration**

FEDERAL AVIATION ADMINISTRATION – PARTS MANUFACTURER APPROVAL

SUPERIOR AIR PARTS, INC.
621 S. Royal Lane, Suite # 100
Coppell, TX 75019-3805

PMA NO. PQ0060SW
SUPPLEMENT NO. 31
REVISION 2
DATE March 17, 2011

Part Name	Part Number	Approved Replacement For Part Number	Approval Basis and Approved Design Data	Make Eligibility	Model Eligibility
Guide, Valve Intake	SA631496	631496	Test and Computations per 14 CFR § 21.303, <u>DWG No:</u> SA631496, <u>Rev:</u> R <u>Date:</u> 07/15/2009 or later FAA-approved revisions	Continental	IO-346-A E165-2 E185-1, 3-, -8, -9, -11 E225-4, -8 IO-470-C IO-470-D, -E, -F, -G, -H, -J, -K, -L, -M, -N, -P, -R, -S, -U, -V O-470-A, -B, -E, -G, -J, -K, -L, -M, -P, -R, -S, -U TSIO-470-B1, -B2, -B3, -C, -D IO-520-A, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, -MB LTSIO-520-AE TSIO-520-AE, -AF, -B, -BB, -C, -CE, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -N, -NB, -P, -R, -T, -U, -UB, -VB, -WB GTSIO-520-C, -D, -F, -H, -K, -L, -M, -N
Guide, Valve Intake	SA631496 P05	631496 P5	Test and Computations per 14 CFR § 21.303, <u>DWG No:</u> SA631496, <u>Rev:</u> R <u>Date:</u> 07/15/2009 or later FAA-approved revisions	Continental	IO-346-A E165-2 E185-1, 3-, -8, -9, -11 E225-4, -8 IO-470-C IO-470-D, -E, -F, -G, -H, -J, -K, -L, -M, -N, -P, -R, -S, -U, -V O-470-A, -B, -E, -G, -J, -K, -L, -M, -P, -R, -S, -U TSIO-470-B1, -B2, -B3, -C, -D IO-520-A, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, -MB LTSIO-520-AE TSIO-520-AE, -AF, -B, -BB, -C, -CE, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -N, -NB, -P, -R, -T, -U, -UB, -VB, -WB GTSIO-520-C, -D, -F, -H, -K, -L, -M, -N

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Part Name	Part Number	Approved Replacement For Part Number	Approval Basis and Approved Design Data	Make Eligibility	Model Eligibility
Guide, Valve Intake	SA631496 P10	631496 P10	Test and Computations per 14 CFR § 21.303, DWG No: SA631496, Rev: R Date: 07/15/2009 or later FAA-approved revisions	Continental	IO-346-A E165-2 E185-1, 3-, -8, -9, -11 E225-4, -8 IO-470-C IO-470-D, -E, -F, -G, -H, -J, -K, -L, -M, -N, -P, -R, -S, -U, -V O-470-A, -B, -E, -G, -J, -K, -L, -M, -P, -R, -S, -U TSIO-470-B1, -B2, -B3, -C, -D IO-520-A, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, -MB LTSIO-520-AE TSIO-520-AE, -AF, -B, -BB, -C, -CE, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -N, -NB, -P, -R, -T, -U, -UB, -VB, -WB GTSIO-520-C, -D, -F, -H, -K, -L, -M, -N
Guide, Valve Intake	SA631496 P15	631496 P15	Test and Computations per 14 CFR § 21.303, DWG No: SA631496, Rev: R Date: 07/15/2009 or later FAA-approved revisions	Continental	IO-346-A E165-2 E185-1, 3-, -8, -9, -11 E225-4, -8 IO-470-C IO-470-D, -E, -F, -G, -H, -J, -K, -L, -M, -N, -P, -R, -S, -U, -V O-470-A, -B, -E, -G, -J, -K, -L, -M, -P, -R, -S, -U TSIO-470-B1, -B2, -B3, -C, -D IO-520-A, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, -MB LTSIO-520-AE TSIO-520-AE, -AF, -B, -BB, -C, -CE, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -N, -NB, -P, -R, -T, -U, -UB, -VB, -WB GTSIO-520-C, -D, -F, -H, -K, -L, -M, -N

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Part Name	Part Number	Approved Replacement For Part Number	Approval Basis and Approved Design Data	Make Eligibility	Model Eligibility
Guide, Valve Intake	SA631496 P20	631496 P20	Test and Computations per 14 CFR § 21.303, <u>DWG No:</u> SA631496, <u>Rev:</u> R <u>Date:</u> 07/15/2009 or later FAA-approved revisions	Continental	IO-346-A E165-2 E185-1, 3-, -8, -9, -11 E225-4, -8 IO-470-C IO-470-D, -E, -F, -G, -H, -J, -K, -L, -M, -N, -P, -R, -S, -U, -V O-470-A, -B, -E, -G, -J, -K, -L, -M, -P, -R, -S, -U TSIO-470-B1, -B2, -B3, -C, -D IO-520-A, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, -MB LTSIO-520-AE TSIO-520-AE, -AF, -B, -BB, -C, -CE, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -N, -NB, -P, -R, -T, -U, -UB, -VB, -WB GTSIO-520-C, -D, -F, -H, -K, -L, -M, -N
Guide, Valve Intake	SA631496 P30	631496 P30	Test and Computations per 14 CFR § 21.303, <u>DWG No:</u> SA631496, <u>Rev:</u> R <u>Date:</u> 07/15/2009 or later FAA-approved revisions	Continental	IO-346-A E165-2 E185-1, 3-, -8, -9, -11 E225-4, -8 IO-470-C IO-470-D, -E, -F, -G, -H, -J, -K, -L, -M, -N, -P, -R, -S, -U, -V O-470-A, -B, -E, -G, -J, -K, -L, -M, -P, -R, -S, -U TSIO-470-B1, -B2, -B3, -C, -D IO-520-A, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, -MB LTSIO-520-AE TSIO-520-AE, -AF, -B, -BB, -C, -CE, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -N, -NB, -P, -R, -T, -U, -UB, -VB, -WB GTSIO-520-C, -D, -F, -H, -K, -L, -M, -N

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Part Name	Part Number	Approved Replacement For Part Number	Approval Basis and Approved Design Data	Make Eligibility	Model Eligibility
Guide, Valve, Exhaust	SA636242	636242	Test and Computations per 14 CFR § 21.303, <u>DWG No:</u> SA636242 <u>Rev:</u> P <u>Date:</u> 07/13/1989 or later FAA-approved revisions	Continental	IO-346 E165-2 E185-1, 3-, -8, -9, -11 E225-4, -8 IO-470-C IO-470-D, -E, -F, -G, -H, -J, -K, -L, -M, -N, -P, -R, -S, -U, -V TSIO-470-B, -C, -D O-470-A, -B, -E, -G, -J, -K, -L, -M, -P, -R, -S, -U, IO-520-A, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, -MB LTSIO-520-AE TSIO-520-AE, -AF, -B, -BB, -C, -CE, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -N, -NB, -P, -R, -T, -U, -UB, -VB, -WB GTSIO-520-C, -D, -F, -H, -K, -L, -M, -N
Guide, Valve, Exhaust	SA636242 P05	636242 P05	Test and Computations per 14 CFR § 21.303, <u>DWG No:</u> SA636242 <u>Rev:</u> P <u>Date:</u> 07/13/1989 or later FAA-approved revisions	Continental	IO-346 E165-2 E185-1, 3-, -8, -9, -11 E225-4, -8 IO-470-C IO-470-D, -E, -F, -G, -H, -J, -K, -L, -M, -N, -P, -R, -S, -U, -V TSIO-470-B, -C, -D O-470-A, -B, -E, -G, -J, -K, -L, -M, -P, -R, -S, -U, IO-520-A, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, -MB LTSIO-520-AE TSIO-520-AE, -AF, -B, -BB, -C, -CE, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -N, -NB, -P, -R, -T, -U, -UB, -VB, -WB GTSIO-520-C, -D, -F, -H, -K, -L, -M, -N

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Part Name	Part Number	Approved Replacement For Part Number	Approval Basis and Approved Design Data	Make Eligibility	Model Eligibility
Guide, Valve, Exhaust	SA636242 P10	636242 P10	Test and Computations per 14 CFR § 21.303, <u>DWG No:</u> SA636242 <u>Rev:</u> P <u>Date:</u> 07/13/1989 or later FAA-approved revisions	Continental	IO-346 E165-2 E185-1, 3-, -8, -9, -11 E225-4, -8 IO-470-C IO-470-D, -E, -F, -G, -H, -J, -K, -L, -M, -N, -P, -R, -S, -U, -V TSIO-470-B, -C, -D O-470-A, -B, -E, -G, -J, -K, -L, -M, -P, -R, -S, -U, IO-520-A, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, -MB LTSIO-520-AE TSIO-520-AE, -AF, -B, -BB, -C, -CE, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -N, -NB, -P, -R, -T, -U, -UB, -VB, -WB GTSIO-520-C, -D, -F, -H, -K, -L, -M, -N
Guide, Valve, Exhaust	SA636242 P15	636242 P15	Test and Computations per 14 CFR § 21.303, <u>DWG No:</u> SA636242 <u>Rev:</u> P <u>Date:</u> 07/13/1989 or later FAA-approved revisions	Continental	IO-346 E165-2 E185-1, 3-, -8, -9, -11 E225-4, -8 IO-470-C IO-470-D, -E, -F, -G, -H, -J, -K, -L, -M, -N, -P, -R, -S, -U, -V TSIO-470-B, -C, -D O-470-A, -B, -E, -G, -J, -K, -L, -M, -P, -R, -S, -U, IO-520-A, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, -MB LTSIO-520-AE TSIO-520-AE, -AF, -B, -BB, -C, -CE, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -N, -NB, -P, -R, -T, -U, -UB, -VB, -WB GTSIO-520-C, -D, -F, -H, -K, -L, -M, -N

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Part Name	Part Number	Approved Replacement For Part Number	Approval Basis and Approved Design Data	Make Eligibility	Model Eligibility
Guide, Valve, Exhaust	SA636242 P20	636242 P20	Test and Computations per 14 CFR § 21.303, <u>DWG No:</u> SA636242 <u>Rev:</u> P <u>Date:</u> 07/13/1989 or later FAA-approved revisions	Continental	IO-346 E165-2 E185-1, 3-, -8, -9, -11 E225-4, -8 IO-470-C IO-470-D, -E, -F, -G, -H, -J, -K, -L, -M, -N, -P, -R, -S, -U, -V TSIO-470-B, -C, -D O-470-A, -B, -E, -G, -J, -K, -L, -M, -P, -R, -S, -U, IO-520-A, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, -MB LTSIO-520-AE TSIO-520-AE, -AF, -B, -BB, -C, -CE, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -N, -NB, -P, -R, -T, -U, -UB, -VB, -WB GTSIO-520-C, -D, -F, -H, -K, -L, -M, -N
Guide, Valve, Exhaust	SA636242 P30	636242 P30	Test and Computations per 14 CFR § 21.303, <u>DWG No:</u> SA636242 <u>Rev:</u> P <u>Date:</u> 07/13/1989 or later FAA-approved revisions	Continental	IO-346 E165-2 E185-1, 3-, -8, -9, -11 E225-4, -8 IO-470-C IO-470-D, -E, -F, -G, -H, -J, -K, -L, -M, -N, -P, -R, -S, -U, -V TSIO-470-B, -C, -D O-470-A, -B, -E, -G, -J, -K, -L, -M, -P, -R, -S, -U, IO-520-A, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, -MB LTSIO-520-AE TSIO-520-AE, -AF, -B, -BB, -C, -CE, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -N, -NB, -P, -R, -T, -U, -UB, -VB, -WB GTSIO-520-C, -D, -F, -H, -K, -L, -M, -N

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Part Name	Part Number	Approved Replacement For Part Number	Approval Basis and Approved Design Data	Make Eligibility	Model Eligibility
Bearing, Connecting Rod Upper & Lower	SA639640	639640	Test and Computations per 14 CFR § 21.303, <u>DWG No:</u> SA639640, <u>Rev:</u> M <u>Date:</u> 10/26/2005 or later FAA-approved revisions	Continental	A-65 A75 C75 C85 C90 O-200-A, B C-125-2 C145-2, -2H O-300-A, -B, -C, -D GO-300 IO-360-A, -C, -D, -G, -H, -J, -K LTSIO-360-A, -B, -C, -D, -E, -F, -H TSIO-360-A, -B, -C, -D, -E, -F, -H
Bearing, Connecting Rod Upper & Lower	SA639640 M05	639640 M05	Test and Computations per 14 CFR § 21.303, <u>DWG No:</u> SA639640, <u>Rev:</u> M <u>Date:</u> 10/26/2005 or later FAA-approved revisions	Continental	A-65 A75 C75 C85 C90 O-200-A, B C-125-2 C145-2, -2H O-300-A, -B, -C, -D GO-300 IO-360-A, -C, -D, -G, -H, -J, -K LTSIO-360-A, -B, -C, -D, -E, -F, -H TSIO-360-A, -B, -C, -D, -E, -F, -H
Bearing, Connecting Rod Upper & Lower	SA639640 M10	639640 M10	Test and Computations per 14 CFR § 21.303, <u>DWG No:</u> SA639640, <u>Rev:</u> M <u>Date:</u> 10/26/2005 or later FAA-approved revisions	Continental	A-65 A75 C75 C85 C90 O-200-A, B C-125-2 C145-2, -2H O-300-A, -B, -C, -D GO-300 IO-360-A, -C, -D, -G, -H, -J, -K LTSIO-360-A, -B, -C, -D, -E, -F, -H TSIO-360-A, -B, -C, -D, -E, -F, -H

FEDERAL AVIATION ADMINISTRATION – PARTS MANUFACTURER APPROVAL

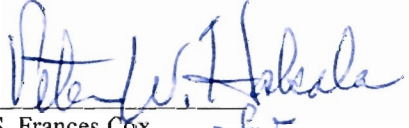
SUPERIOR AIR PARTS, INC.
621 S. Royal Lane, Suite # 100
Coppell, TX 75019-3805

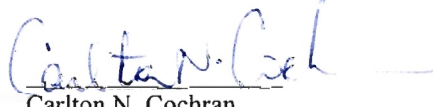
PMA NO. PQ0060SW
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Bearing, Connecting Rod Upper & Lower	SA639640 M20	639640 M20	Test and Computations per 14 CFR § 21.303, <u>DWG No:</u> SA639640, <u>Rev:</u> M <u>Date:</u> 10/26/2005 or later FAA-approved revisions	Continental	A-65 A75 C75 C85 C90 O-200-A, B C-125-2 C145-2, -2H O-300-A, -B, -C, -D GO-300 IO-360-A, -C, -D, -G, -H, -J, -K LTSIO-360-A, -B, -C, -D, -E, -F, -H TSIO-360-A, -B, -C, -D, -E, -F, -H
-----End of Listing-----					

NOTE:

- 1) Provide minor design changes in a manner as determined by the ACO. Handle major design changes to drawings and specifications in the same manner as that for an original FAA-PMA.
- 2) The FAA approved ICA for the above parts with their designs. These ICA may refer to those of the respective parts from the holders of type certificates. Otherwise, provide supplemental ICA for differences in the replacement parts. Make referral statements or supplemental ICA readily available per 14 CFR 21.50.
- 3) Supplement 31, revision 2, dated March 17, 2011, updates Supplement 31, revision 1 dated September 27, 1993. The purpose of the revision is to include over-sized and under-sized parts, not previously listed on Supplement 31, revision 1. Supplement 31, revision 2, dated March 17, 2011, replaces Supplement 31, revision 1.


S. Frances Cox
Manager, Special Aircraft Certification Office
ASW-190
3/17/11


Carlton N. Cochran
Manager, Fort Worth Manufacturing Inspection District Office
SW MIDO-42