



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

Small Airplane Directorate
Kansas City Manufacturing Inspection
District Office
901 Locust Street, Room 403B
Kansas City, MO 64106-2641
Tel: 816-329-4190 Fax: 816-329-4195

June 27, 2012

Project No. PQ3830CE

Revision Date: October 31, 2014

Kyle Byrne
Quality Manager
Aviation Products Systems, Inc.
3701 Hwy 162
Granite City, IL 62040

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, Articles, and Parts, subpart K, the FAA has found that the design data, based on Test and Computations with your letter dated February 1, 2011, meets the airworthiness requirements of the regulations applicable to the products on which the articles are to be installed. Additionally, the FAA has determined that Aviation Products Systems, Inc., has established the quality system required by § 21.307 at 3701 Hwy 162, Granite City, IL 62040. Accordingly, Parts Manufacturer Approval (PMA) is hereby granted for production of the replacement articles listed in the enclosed Supplement **No. 19R.(Reason for revision: This supplement was revised to correct the typographical error on part numbers listed in line 4. P/N APS-658263-S should be APS-655705-S and P/N 658263 should be 655705.)**

You are reminded that the provisions of 14 CFR, Parts 21 and 45, noted in our PMA letter of approval dated May 8, 2002, also apply to the enclosed PMA Listing-Supplement **No. 19R**. The enclosed supplement should be retained with the original PMA letter as evidence of approval to produce the Articles concerned.

Sincerely,

for 
Edward J. Mehrhoff
Aviation Safety Inspector
Kansas City Manufacturing Inspection District Office

Enclosure: PMA Supplement No. 19R



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

FEDERAL AVIATION ADMINISTRATION - PARTS MANUFACTURER APPROVAL

Aviation Products Systems, Inc
3701 Highway 162
Granite City, IL 62040

PMA No: PQ3830CE
Supplement No. 19R
October 31, 2014

| <u>Article Name</u> | <u>Part Number</u> | <u>Approved Replacement for Part Number</u> | <u>Approval Basis and Approved Design Data</u> | <u>Make Eligibility</u> | <u>Model Eligibility</u> |
|---------------------|--------------------|---|---|-------------------------|--|
| Gasket | APS-655704-S | 655704 | Test and Computations 14 CFR § 21.303 DWG No: APS-655704-S Rev: A Date: 2/27/2012 or later FAA-approved Revisions. | Continental | IO-240-A, -B, IO-360-A1A1, A1A2, A2A1, A2A2, A3A1, A3A2, B1A1, B1A2, B2A1, B2A2, B3A1, B3A2, B4A1, B4A2, B5A1, B5A2, B6A1, B6A2, C1A1, C1A2, C2A1, C2A2, C2A1, C3A2, D1A1, D1A2, D2A1, D2A2, D3A1, D3A2, D4A1, D4A2, D5A1, D5A2, D6A1, D6A2, E1A1, E1A2, E2A1, E2A2, E3A1, E3A2, TSIO-360-A, - AB, -B, -C, -CB, - D, -DB, -E, -F, -G, -GB, -H, -HB, - EB, -FB, -JB, -KB, -LB, -BB, -MB, - NB, -PB, -RB, -SB E165-2, -3, -4, E185-1, -2, -3 (Military O-470-7, -7A) E185-5, -8, -9 (Military O-470- 7B), -10, -11 E225-2, -4, -8, -9, O-470-A, -E, -J IO-470-J, -K LTSIO-520-AE |
| Gasket | APS-653193-S | 653193 | Test and Computations 14 CFR § 21.303 DWG No: APS-653193-S Rev: A Date: 2/27/2012 or later FAA-approved Revisions. | Continental | E165-2, -3, -4, E185-1, -2, -3 (Military O-470-7, -7A) E185-5, -8, -9 (Military O-470- 7B), -10, -11 E225-2, -4, -8, -9, O-470-A, -E, -J IO-470-J, -K LTSIO-520-AE |

| | | | | | |
|--------|--------------|--------|--|-------------|---|
| Gasket | APS-655528-S | 655528 | Test and Computations 14 CFR § 21.303 DWG No: APS-655528-S Rev: A Date: 2/27/2012 or later FAA-approved Revisions. | Continental | O-470-G, -K, -L, -R, -S, -U IO-470-D, -E, -F, -H, -L, -M, -N, -S, -U, -V TSIO-470-B, -C IO-520-A, -B, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, -MB, -N, -NB TSIO-520 -AF, -CE, -UB, -B, -BB, -C, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -N, -NB, -P, -R, -T, -VB, -WB IO-550-A, -B, -C, -D, -E, -F, -L |
| Gasket | APS-655705-S | 655705 | Test and Computations 14 CFR § 21.303 DWG No: APS-655705-S Rev: IR Date: 8/6/2012 or later FAA-approved revisions | Continental | TSIO-520- BE IO-550-G, -N, -P, -R TSIO-550 -A, -B, -C, -E, -K GTSIO-520-C, -D, -F, -H, -K, -L, -M -N |
| Gasket | APS-75906-S | 75906 | Test and Computations 14 CFR § 21.303 DWG No: APS-75906-S Rev: A Date: 2/27/2012 or later FAA-approved Revisions. | Lycoming | O-235-A, -B, -AP, -BP-C, -C1, -C1A, -C1B, -C1C, -C2A, -C2B, -C2C, -E1, -E1B, -E2A, -E2B, -F1, -F1B, -F2A, -F2B, -G1, -G1B, -G2A, -G2B, -H2C, -J2A, -J2B, -K2A, -K2B, -K2C, -L2A, -L2C, -M1, -M2C, -M3C, -N2A, -N2C, -P1, -P2A, -P2C, -P3C O-290-A, -AP, -B (O-290-1), -C (O-290-3), -CP, -D (O-290-11), -D2, -D2A, -D2B, -D2C O-320-A1A, -A1B, -A2A, -A2B, -A2C, -A2D, -A3A, -A3B, -A3C, -B1A, -B1B, -B2A, -B2B, -B2C, -B3A, -B3B, B3C, -B2D, -B2E -C1A, -C1B, -C2A, -C2B, -C2C, -C3A, -C3B, -C3C, -D1A, -D1B, -D1C, -D1D, -D1F, -D2A, -D2B, -D2C, -D2F, -D2G, -D2H, -D2J, -D3G, -E1A, -E1B, |

-E1C, -E1F, -E1J, -
E2A, -E2B, -E2C,
-E2D, -E2F, -E2G,
-E2H, -E3D, -E3H,
-H1AD, -H1BD, -
H2AD, -H2BD, -
H3AD, -H3BD
O-340-A1A, -
A2A, -B1A
O-360-A1A, -
A1AD, -A1C, -
A1D, -A1F, -
A1F6, -A1F6D, -
A1G, -A1G6, -
A1G6D, -A1H, -
A1H6, -A1LD, -
A1P, -A2A, -A2D,
-A2E, -A2F, -
A2G, -A4A, -A3A,
-A3AD, -A4AD,
-A4D, -A4G, -
A4J, -A4K, -
A4M, -A4N, -A4P, -
A5AD, -B2A, -
C1C, -C1E, -C1F, -
C1G, -C2A, -C2C,
-C2D, -C2E, -C4F,
-C4P, -F1A6, -
G1A6
O-360-B2A,
-D2A, -D2B
LO-360-A1G6D,
-A1H6, -E1A6D
IO-360-B1B,
-B1D,
-B1E, -B1F, -
B1G6, -B2E, -
B2F, -B2F6, -
B4A, -L2A, -
M1A, -M1B
AEIO-360-B1B,
-B1H, -B1G6, -
B2F, -B4A, -
H1A, -H1B
HIO-360-B1A, -
G1A
HO-360-C1A
O-540-A4D5, -
E4A5, -E4B5, -
E4C5, -G1A5, -
G2A5, -HIB5D, -
H2B5D
IO-540-C4B5, -
C4B5D, --
C4D5D, -D4A5,
-D4B5, -D4C5, -
N1A5, -T4B5D, -
V4A5D, -V4A5,
AEIO-540-
D4A5, -D4B5,
-D4D5
O-540-B1A5, -
B1B5, -B2A5, -
B2B5, -B2C5, -

Gasket

APS-67193-S

67193

Test and Computations
14 CFR § 21.303
DWG No: APS-67193-S
Rev: A
Date: 2/27/2012
or later FAA-approved
revisions

Lycoming

B2B5
O-540-F1B5, -
J1A5D, -J1C5D,
-J2A5D, -J3A5, -
J3A5D, -J3C5D
IO-540 -W1A5,
-W1A5D, -
W3A5D, -
AB1A5
O-540-L3C5D
TIO-540 -C1A,
-E1A, -H1A
TIO-540 -
AA1AD, -
AB1AD, -
AB1BD, -AF1A,
-AG1A, -K1AD,
-AF1B.
IO-360-A1A, -
A1B6, -A1B6D,
-A1C, -A1C6, -
A1D, -A1D6, -
A2A, -A2B, -
A2C, -A3B6, -
A3B6D, -
A3D6D, -C1A, -
C1B, -C1C, -
C1C6, -C1D6, -
C1E6, -C1E6D, -
C1G6, -D1A, -
J1A6D, -K2A
AIO-360-A1A, -
A1B, -B1B
AEIO-360-A1A,
-A1B, -A1B6, -
A1D, -A1E, -
A1E6, -A2B
LIO-360-C1E6,
IO-540-K1A5, -
K1A5D, -K1B5, -
K1D5, -K1F5, -
K1F5D, -K1G5 -
K1G5D, -K1H5,
-K1J5, -K1J5D, -
K1G5D, -K1H5,
-K1J5, -K1J5D, -
K1K5, -L1A5D,
-L1C5, -AE1A5
AEIO-540-
L1B5, -L1B5D, -
L1D5
IO-540-AA1A5,
-AA1B5
TIO-540-U2A
LTIO-540-U2A
IGSO-540-A1A,
-A1C, -A1D,
-A1E, -A1H
TIO-540-AE2A,
-AH1A
HIO-540-A1A
IO-720-A1A,

| | | | | | |
|--------|-------------|-------|---|----------|---|
| | | | | | -A1B, -D1B, -D1C, -D1CD TIVO-540-A2A IVO-540-A1A VO-540-A1A, -B1A, -B1B, -B1B3, -B1C, - B1D, -B1F,- B2D, -C1A, - C1B, -C1C3, - C2A, -C2C TVO-540-A1A VO-435-A1D, - A1C, -A1A, - A1E, -A1F, - B1A TVO-435-A1A, -B1A, -B1B, - D1A, -D1B, - F1A, -G1A, - G1B GO-435-C2 TIO-541-E1A4,- E1B4, -E1C4,- EAD4 TIGO-541-E1A TIO-540-V2AD LTIO-540- V2AD TO-360-C1A6D IO-360-F1A IO-540-J4A5 |
| Gasket | APS-76036-S | 76036 | Test and Computations 14 CFR § 21.303 DWG No: APS-76036-S Rev: A Date: 2/27/2012 or later FAA-approved Revisions. | Lycoming | TIO-541- E1A4,-E1B4, - E1C4, -EAD4 TIGO-541-E1A TIO-540-V2AD LTIO-540- V2AD TO-360-C1A6D IO-360-F1A IO-540-J4A5 |
| Gasket | APS-71450-S | 71450 | Test and Computations 14 CFR § 21.303 DWG No: APS-71450-S Rev: A Date: 2/27/2012 or later FAA-approved Revisions. | Lycoming | TIO-540-A1A, - A1B, -A2B, - A2C, -F2BD, - J2B, -J2BD, - N2BD, -R2AD, - S1AD LTIO-540- F2BD, -J2B, - J2BD, -N2BD, - R2AD IO-540-B1A5, - B1C5, -E1A5, - E1B5 IO-720-B1B, - B1BD, -C1B IO-540-M1A5D, -M1B5D, - U1A5D, - |

U1B5D
IGO-540-B1A, -
B1C
IGSO-540-B1A,
-B1C

| | | | | | |
|--------|--------------|--------|--|-------------|--|
| Gasket | APS-655706-S | 655706 | Test and Computations 14 CFR § 21.303 DWG No: APS-655706-S Rev A Date: 2/27/2012 or later FAA-approved revisions | Continental | A-40 Series A-50 Series A-65 Series A-70 Series A-75 Series A-80 Series C-75 Series C-85 Series C-90 Series C-125 Series C-145 Series O-200 Series O-300 Series, GO-300-A, -B, - C, -D, -E, -F |
|--------|--------------|--------|--|-------------|--|

-----End of Listing-----

Note: The procedures that have been accepted by the type certificate or TSO authorization holder and their cognizant FAA Aircraft Certification Office, for minor changes to original articles used on type-certificated products, are also acceptable for incorporating the same minor changes on identical PMA replacement articles. The PMA holder must be able to show traceability relating to the TC, STC, or TSO authorization holder on all minor changes incorporated by this procedure. When these procedures are no longer applicable because of completion of the production contract, or termination of the licensing agreement or business relationship, all subsequent minor design changes to the PMA articles must be submitted in a manner as determined by the ACO. Major design changes (reference 14 CFR §21.319) to drawings and specifications are to be handled in the same manner as that for an original PMA.



Tilak Nandipati,
Manager, Kansas City,
Manufacturing Inspection District Office

Date:
October 31, 2014