



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

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

Manufacturing Inspection District Office  
10101 Hillwood Parkway, SW MIDO-42  
Fort Worth, Texas 76177-1524

May 2, 2017

Bill Huang  
Engineer  
Superior Air Parts, Inc.  
621 S. Royal Lane, Suite 100  
Coppell, TX 75019-3877

FEDERAL AVIATION ADMINISTRATION (FAA)-PARTS MANUFACTURER APPROVAL

Dear Mr. Haung:

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 and submitted by Superior Air Parts, Inc., with your letter dated March 14, 2017, meet the airworthiness requirements of the regulations applicable to the products on which the articles are to be installed. Additionally, the FAA has determined that Superior Air Parts, Inc., has established the quality system required by § 21.307 at 621 S. Royal Lane, Suite 100, Coppell, TX 75019-3877. Accordingly, Parts Manufacturer Approval (PMA) is hereby granted for production of the replacement articles listed in the enclosed Supplement No. 199.

You are reminded that the provisions of 14 CFR parts 21 and 45, noted in our PMA letter of approval, dated July 9, 2012, also apply to the enclosed PMA Listing-Supplement No. 199. The enclosed supplement should be retained with the original PMA letter as evidence of approval to produce the articles concerned.

Sincerely,

A handwritten signature in blue ink that reads "Carlton N Cochran".

Carlton N. Cochran  
Manager, Fort Worth Manufacturing Inspection  
District Office

Enclosure  
PMA Listing-Supplement No. 199



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

FEDERAL AVIATION ADMINISTRATION – PARTS MANUFACTURER APPROVAL (PMA)

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

PMA NO.      PQ0060SW  
SUPPLEMENT NO.    199  
DATE:            May 2, 2017

Article Name	Article Number	Approved Replacement For Article Number	Approval Basis and Approved Design Data	Make/TCH Eligibility	Model/Series Eligibility
Bearing, Crankshaft	SL16711A	P/N LW-16711 P/N 18D23135 P/N 18D26098	Test and Computations per 14 CFR §21.303, <u>DWG No:</u> SL16744A, <u>Rev:</u> F, <u>Date:</u> 11/16/11, or later FAA approved revisions.	Lycoming Engines	O-320-A1A, -A1B, -A2A, -A2B, -A2C, -A2D, -A3A, -A3B, -A3C, -B1A, -B1B, -B2A, -B2B, -B2C, -B3A, -B3B, -B3C, -D1A, -D1D, -D1F, -D2A, -D2B, -D2C, -D2G, -D2J, -D3G, -E1A, -E1F, -E2A, -E2B, -E2C, -E2D, -E2F, -E2G, -E2H, -E3D, -E3H  IO-320-B1A, -B1C, -C1A, -D1A, -D1B, -E1A, -E1B, -E2A, -E2B  AIO-320-B1B, -C1B  LIO-320-B1A, -C1A  AEIO-320-D1B, -D2B, -E1A, -E1B, -E2A, -E2B  O-360-A1A, -A1AD, -A1C, -A1D, -A1F6, -A1F6D, -A1G6, -A1G6D, -A1H6, -A1LD, -A1P, -A2A, -A2D, -A2E, -A2F, -A2G, -A3A, -A3AD, -A4A, -A4G, -A4J, -A4K, -A4M, -A4N, -A4P, -A5AD, -C1A, -C1C, -C1E, -C1F, -C1G, -C2A, -C2C, -C2D, -C2E, -C4F, -C4P, -D2A, -D2B, -E1A6D, -F1A6, -J2A  HO-360-C1A

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Bearing, Crankshaft	SL16711A	P/N LW-16711 P/N 18D23135 P/N 18D26098	Test and Computations per 14 CFR §21.303, <u>DWG No:</u> SL16744A, <u>Rev:</u> F, <u>Date:</u> 11/16/11, or later FAA approved revisions.	Lycoming Engines	IO-360-A1A, -A1B, -A1B6, -A1B6D, -A1C, -A1D, -A1D6, -A2A, -A2B, -A3B6, -A3B6D, -B1A, -B1B, -B1D, -B1E, -B1F, -B1G6, -B2F, -B2F6, -B4A, -C1A, -C1B, -C1C, -C1C6, -C1D6, -C1E6, -C1F, -C1G6, -J1A6D, -L2A, -M1A, -M1B  LO-360-A1G6D, -A1H6  AIO-360-A1A, -A1B, -B1B  HIO-360-G1A  LIO-360-C1E6, -M1A  AEIO-360-A1A, -A1B, -A1B6, -A1C, -A1D, -A1E, -A2A, -A2B, -B1B, -B1D, -B1F, -B1G6, -B1H, -B2F, -B2F6, -B4A, -H1A, -H1B  O-540-A1A, -A1A5, -A1B5, -A1C5, -A1D, -A1D5, -A2B, -A3D5, -A4B5, -A4D5, -A4E5, -B1A5, -B1B5, -B2B5, -B2C5, -B4B5, -E4A5, -E4B5, -E4C5, -F1B5, -G1A5, -G2A5, -H1B5D, -H2A5, -H2B5D  IO-540-C1B5, -C4B5, -C4C5, -C4D5, -C4D5D, -D4A5, -N1A5, -T4A5D, -T4B5, -T4B5D, -T4C5D, -V4A5, -V4A5D, -AA1A5, -AE1A5, -AF1A5

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Bearing, Crankshaft	SL16711A	P/N LW-16711 P/N 18D23135 P/N 18D26098	Test and Computations per 14 CFR §21.303, <u>DWG No:</u> SL16744A, <u>Rev:</u> F, <u>Date:</u> 11/16/11, or later FAA approved revisions.	Lycoming Engines	TIO-540-C1A, -AA1AD, -AB1AD, -AF1A, -AF1B, -AG1A, -AK1A  AEIO-540-D4A5, -D4B5, -D4D5
Bearing, Crankshaft	SL16711A M03	P/N LW-16711-M03 P/N 18D23135-M03 P/N 18D26098-M03	Test and Computations per 14 CFR §21.303, <u>DWG No:</u> SL16744A, <u>Rev:</u> F, <u>Date:</u> 11/16/11, or later FAA approved revisions.	Lycoming Engines	O-320-A1A, -A1B, -A2A, -A2B, -A2C, -A2D, -A3A, -A3B, -A3C, -B1A, -B1B, -B2A, -B2B, -B2C, -B3A, -B3B, -B3C, -D1A, -D1D, -D1F, -D2A, -D2B, -D2C, -D2G, -D2J, -D3G, -E1A, -E1F, -E2A, -E2B, -E2C, -E2D, -E2F, -E2G, -E2H, -E3D, -E3H  IO-320-B1A, -B1C, -C1A, -D1A, -D1B, -E1A, -E1B, -E2A, -E2B  AIO-320-B1B, -C1B  LIO-320-B1A, -C1A  AEIO-320-D1B, -D2B, -E1A, -E1B, -E2A, -E2B  O-360-A1A, -A1AD, -A1C, -A1D, -A1F6, -A1F6D, -A1G6, -A1G6D, -A1H6, -A1LD, -A1P, -A2A, -A2D, -A2E, -A2F, -A2G, -A3A, -A3AD, -A4A, -A4G, -A4J, -A4K, -A4M, -A4N, -A4P, -A5AD, -C1A, -C1C, -C1E, -C1F, -C1G, -C2A, -C2C, -C2D, -C2E, -C4F, -C4P, -D2A, -D2B, -E1A6D, -F1A6, -J2A  HO-360-C1A

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Bearing, Crankshaft	SL16711A M03	P/N LW-16711-M03 P/N 18D23135-M03 P/N 18D26098-M03	Test and Computations per 14 CFR §21.303, <u>DWG No:</u> SL16744A, <u>Rev:</u> F, <u>Date:</u> 11/16/11, or later FAA approved revisions.	Lycoming Engines	IO-360-A1A, -A1B, -A1B6, -A1B6D, -A1C, -A1D, -A1D6, -A2A, -A2B, -A3B6, -A3B6D, -B1A, -B1B, -B1D, -B1E, -B1F, -B1G6, -B2F, -B2F6, -B4A, -C1A, -C1B, -C1C, -C1C6, -C1D6, -C1E6, -C1F, -C1G6, -J1A6D, -L2A, -M1A, -M1B  LO-360-A1G6D, -A1H6  AIO-360-A1A, -A1B, -B1B  HIO-360-G1A  LIO-360-C1E6, -M1A  AEIO-360-A1A, -A1B, -A1B6, -A1C, -A1D, -A1E, -A2A, -A2B, -B1B, -B1D, -B1F, -B1G6, -B1H, -B2F, -B2F6, -B4A, -H1A, -H1B  O-540-A1A, -A1A5, -A1B5, -A1C5, -A1D, -A1D5, -A2B, -A3D5, -A4B5, -A4D5, -A4E5, -B1A5, -B1B5, -B2B5, -B2C5, -B4B5, -E4A5, -E4B5, -E4C5, -F1B5, -G1A5, -G2A5, -H1B5D, -H2A5, -H2B5D  IO-540-C1B5, -C4B5, -C4C5, -C4D5, -C4D5D, -D4A5, -N1A5, -T4A5D, -T4B5, -T4B5D, -T4C5D, -V4A5, -V4A5D, -AA1A5, -AE1A5, -AF1A5  TIO-540-C1A, -AA1AD, -AB1AD, -AF1A, -AF1B, -AG1A, -AK1A

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Bearing, Crankshaft	SL16711A M03	P/N LW-16711-M03 P/N 18D23135-M03 P/N 18D26098-M03	Test and Computations per 14 CFR §21.303, <u>DWG No:</u> SL16744A, <u>Rev:</u> F, <u>Date:</u> 11/16/11, or later FAA approved revisions.	Lycoming Engines	AEIO-540-D4A5, -D4B5, -D4D5
Bearing, Crankshaft	SL16711A M06	P/N LW-16711-M06 P/N 18D23135-M06 P/N 18D26098-M06	Test and Computations per 14 CFR §21.303, <u>DWG No:</u> SL16744A, <u>Rev:</u> F, <u>Date:</u> 11/16/11, or later FAA approved revisions.	Lycoming Engines	O-320-A1A, -A1B, -A2A, -A2B, -A2C, -A2D, -A3A, -A3B, -A3C, -B1A, -B1B, -B2A, -B2B, -B2C, -B3A, -B3B, -B3C, -D1A, -D1D, -D1F, -D2A, -D2B, -D2C, -D2G, -D2J, -D3G, -E1A, -E1F, -E2A, -E2B, -E2C, -E2D, -E2F, -E2G, -E2H, -E3D, -E3H  IO-320-B1A, -B1C, -C1A, -D1A, -D1B, -E1A, -E1B, -E2A, -E2B  AIO-320-B1B, -C1B  LIO-320-B1A, -C1A  AEIO-320-D1B, -D2B, -E1A, -E1B, -E2A, -E2B  O-360-A1A, -A1AD, -A1C, -A1D, -A1F6, -A1F6D, -A1G6, -A1G6D, -A1H6, -A1LD, -A1P, -A2A, -A2D, -A2E, -A2F, -A2G, -A3A, -A3AD, -A4A, -A4G, -A4J, -A4K, -A4M, -A4N, -A4P, -A5AD, -C1A, -C1C, -C1E, -C1F, -C1G, -C2A, -C2C, -C2D, -C2E, -C4F, -C4P, -D2A, -D2B, -E1A6D, -F1A6, -J2A  HO-360-C1A

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Bearing, Crankshaft	SL16711A M06	P/N LW-16711-M06 P/N 18D23135-M06 P/N 18D26098-M06	Test and Computations per 14 CFR §21.303, <u>DWG No:</u> SL16744A, <u>Rev:</u> F, <u>Date:</u> 11/16/11, or later FAA approved revisions.	Lycoming Engines	IO-360-A1A, -A1B, -A1B6, -A1B6D, -A1C, -A1D, -A1D6, -A2A, -A2B, -A3B6, -A3B6D, -B1A, -B1B, -B1D, -B1E, -B1F, -B1G6, -B2F, -B2F6, -B4A, -C1A, -C1B, -C1C, -C1C6, -C1D6, -C1E6, -C1F, -C1G6, -J1A6D, -L2A, -M1A, -M1B  LO-360-A1G6D, -A1H6  AIO-360-A1A, -A1B, -B1B  HIO-360-G1A  LIO-360-C1E6, -M1A  AEIO-360-A1A, -A1B, -A1B6, -A1C, -A1D, -A1E, -A2A, -A2B, -B1B, -B1D, -B1F, -B1G6, -B1H, -B2F, -B2F6, -B4A, -H1A, -H1B  O-540-A1A, -A1A5, -A1B5, -A1C5, -A1D, -A1D5, -A2B, -A3D5, -A4B5, -A4D5, -A4E5, -B1A5, -B1B5, -B2B5, -B2C5, -B4B5, -E4A5, -E4B5, -E4C5, -F1B5, -G1A5, -G2A5, -H1B5D, -H2A5, -H2B5D  IO-540-C1B5, -C4B5, -C4C5, -C4D5, -C4D5D, -D4A5, -N1A5, -T4A5D, -T4B5, -T4B5D, -T4C5D, -V4A5, -V4A5D, -AA1A5, -AE1A5, -AF1A5  TIO-540-C1A, -AA1AD, -AB1AD, -AF1A, -AF1B, -AG1A, -AK1A  AEIO-540-D4A5, -D4B5, -D4D5

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Bearing, Crankshaft	SL16711A M10	P/N LW-16711-M10 P/N 18D23135-M10 P/N 18D26098-M10	Test and Computations per 14 CFR §21.303, <u>DWG No:</u> SL16744A, <u>Rev:</u> F, <u>Date:</u> 11/16/11, or later FAA approved revisions.	Lycoming Engines	LO-360-A1G6D, -A1H6 AIO-360-A1A, -A1B, -B1B HIO-360-G1A LIO-360-C1E6, -M1A  AEIO-360-A1A, -A1B, -A1B6, -A1C, -A1D, -A1E, -A2A, -A2B, -B1B, -B1D, -B1F, -B1G6, -B1H, -B2F, -B2F6, -B4A, -H1A, -H1B  O-540-A1A, -A1A5, -A1B5, -A1C5, -A1D, -A1D5, -A2B, -A3D5, -A4B5, -A4D5, -A4E5, -B1A5, -B1B5, -B2B5, -B2C5, -B4B5, -E4A5, -E4B5, -E4C5, -F1B5, -G1A5, -G2A5, -H1B5D, -H2A5, -H2B5D  IO-540-C1B5, -C4B5, -C4C5, -C4D5, -C4D5D, -D4A5, -N1A5, -T4A5D, -T4B5, -T4B5D, -T4C5D, -V4A5, -V4A5D, -AA1A5, -AE1A5, -AF1A5  TIO-540-C1A, -AA1AD, -AB1AD, -AF1A, -AF1B, -AG1A, -AK1A  AEIO-540-D4A5, -D4B5, -D4D5

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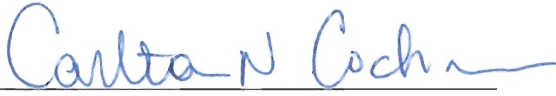
<b>Article Name</b>	<b>Article Number</b>	<b>Approved Replacement For Article Number</b>	<b>Approval Basis and Approved Design Data</b>	<b>Make/TCH Eligibility</b>	<b>Model/Series Eligibility</b>
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----- END OF DATA -----

GENERAL NOTES:

Provide minor design changes in a manner as determined by the ACO. Process major design changes to drawings and specifications in the same manner as that for an original FAA-PMA.

The FAA accepted the ICA approach for the above articles with their designs. These ICA may refer to those of the respective articles from the holders of type certificates. Otherwise, provide supplemental ICA for differences in the replacement articles. Make referral statements or supplemental ICA readily available per 14 CFR 21.50.



*for* Jim Grigg  
Manager, Fort Worth Aircraft Certification Office  
Aircraft Certification Service



Carlton N. Cochran  
Manager, Fort Worth Manufacturing Inspection  
District Office