

Maintenance of Bonded Sandwich Mountings and Assemblies

Where a component maintenance manual is available for a system, its requirements take precedence.

1. General Comments

Bonded sandwich assemblies are natural rubber or specially blended synthetic compounds bonded to two plates. The normal installation requires four assemblies, each consisting of two sandwich mountings and one spacer. Satisfactory performance requires that the spacer be designed to the correct length to precompress each mounting to guarantee proper positioning of the mountings. When properly installed, these mountings provide excellent isolation of engine vibration, resulting in smoother, quieter flight. Always order replacement mountings by the mounting assembly number to ensure the correct spacer.

2. Visual Inspection of Installed Mountings

At each annual inspection and at FAA-required inspections of the aircraft's engines, all mounting assemblies should be visually inspected in their installed state while supporting the engine weight. The correct visual inspection procedure is as follows:

- Inspect all bonded sandwich mountings for metal-to-rubber bond separations, flex cracks, rubber deterioration due to exposure to fluids, and mechanical damage such as cuts in the rubber surface.
- Visually inspect all bonded steel parts for cracks and excessive nicks, scratches or gouges.
- Inspect all nut locking wires for looseness and tighten as necessary.
- When applicable, measure all drift indicators in each mounting assembly for excessive deflection.
- Whenever any of the conditions detailed above in steps a, b, and d are found, remove the mounting assembly from the engine, disassemble, inspect, and repair it as described in the maintenance manual.

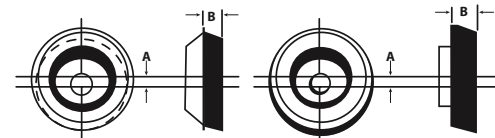
CAUTION: WHENEVER THE AIRCRAFT'S ENGINES ARE CLEANED DURING A NORMAL INSPECTION, COVER EACH MOUNTING ASSEMBLY TO PROTECT IT FROM CONTAMINATION BY CLEANING FLUIDS OR SOLVENTS. THIS ALSO APPLIES TO ENGINE LUBRICANTS. SHOULD ANY SUCH MATERIALS ACCIDENTALLY GET ON A MOUNTING ASSEMBLY, WIPE IT OFF THOROUGHLY AS SOON AS POSSIBLE WITH A CLEAN, DRY RAG.

3. Disassembly

To remove mounting assemblies from the installation, it is necessary to remove the engine weight from the mountings, by the use of a chain hoist or equivalent, and disconnect the nuts and bolts which hold the mountings in place. In general, removal of one mounting at a time can usually be accomplished, if necessary, without removing the engine weight from the mountings.

4. Cleaning & Inspection

- Wipe oil and dirt from bonded mountings, but do not dip in cleaning solvents.
- Steel bolts and spacers should be inspected for cracks or damaged threads. Examine spacers for crushing of ends, caused by excessive tightening torque on bolt. Replace if either condition is apparent.
- Examine bonded rubber mounting for oil swelling, bond or rubber separation and shear or compression set. Bond separation, oil swelling, or flex cracks in the surface of the rubber are cause for rejection. The effects of shear and compression set are determined by measuring the dimensions shown on the sketch. Reject parts which have an eccentricity greater than dimension "A" or an overall thickness less than dimension "B".



**From original position (see installation drawing)*

| Mounting Series Number | Eccentricity Max. "A" | Thickness Min. "B" |
|------------------------|-----------------------|--------------------|
| J1552 | 0.05 | 0.29 |
| J2245 | 0.06 | 0.45 |
| J3049 | 0.07 | 0.71 |
| J6113 | 0.05* | 0.39 |
| J7401 | 0.06 | 0.75 |
| J7530 | 0.06* | 0.75 |
| J7649 | 0.06* | 0.75 |
| J7763 | 0.08 | 1.02 |
| J8381 | 0.06 | 0.75 |
| J9555 | 0.06* | 0.75 |
| J9612 | 0.08 | 1.22 |
| J10533 | 0.10* | 0.80 |
| J10776 | 0.10* | 1.01 |
| J12165 | 0.20 | 1.00 |
| J12397 | 0.20 | 0.86 |
| J12454 | 0.20 | 1.30 |
| J12799 | 0.20 | 1.28 |
| J13051 | 0.23 | 1.40 |
| J15199 | 0.40 | 1.60 |
| J7763-34(BTR-II) | 0.14 | 1.02 |
| J9612-30 (BTR-II) | 0.14 | 1.20 |
| J9612-32 (BTR-II) | 0.12 | 1.20 |

LORD® Mounts for General Aviation

A Quick Reference Guide



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| MODEL | LORD PART NO. | NO. PER A/C | SPECIAL INFORMATION |
|---------------------------|----------------------|-------------|----------------------------|
| AEROFAB/COLONIAL | | | |
| C-2 | J-7401-2 | 4 | |
| AVIAT | | | |
| S-1, S-1S, S-2A | J-7401-2 | 8 | |
| AEROMACCHI | | | |
| AL-60C5/F5 | J-9613-24 / -9 | 2 ea. | |
| BELLANCA | | | |
| 17-30A | J-12453-1 / -2 | 2 ea. | S/N 30847 & up |
| 17-31, 17-31A, 17-TC, ATC | J-9868-5 | 4 | |
| 7ECA | J-6230-1 | 4 | Citabria (1967 on) |
| 7GCAA, 7GCBC, 7KCAB | J-6230-1 | 4 | |
| 8KCAB, -180, -CS, -FP | J-6230-1 | 4 | |
| BRITTON NORMAN | | | |
| BN-2, BN-2A MK. 111 | J-7402-20 | 8 | |
| BRITISH AEROSPACE | | | |
| 3100/3200 | LM-600-88 | 12 | Replaces 00-11624-01 |
| 3100/3200 | LM-600-90 | 6 | Replaces 82-9060-01 |
| CESSNA | | | |
| 150, 150A-F, F150 | SE-1051-3 | 1 | NLG Damper (Early Models)* |
| 152, 152 Aerobat | J-7402-1 | 4 | S/N 15279406-85594 |
| 152, 152A, 172 | SE-1051-2 | 1 | NLG Damper* |
| 172 I-P | J-9613-49 | 4 | |
| 172Q | J-9613-49 / -72 | 2 ea. | S/N 17275869 on |
| 172R, S | J-9613-82 | 4 | * |
| 172RG | J-9613-49 / -72 | 2 ea. | |
| R172E, K | J-9613-42 / -12 | 2 ea. | S/N R172-0302 to -0335 |
| 177, A-B | J-9613-49 | 4 | |
| 177RG | J-9613-59 | 4 | |
| 180 | J-3804-14 / -15 | 2 ea. | S/N 30002-32150 |
| 180, 180A-H | J-6545-1 | 4 | |
| 182, 182A-R | J-6545-1 | 4 | |
| 182 (new) | | | |
| T182, TR182 | J-9613-12 | 4 | |
| 185, 185A-E | J-6545-1 | 4 | |
| A188B | J-15198-1 / -2 | 2 ea. | S/N 18802349 & up |
| T188 | J-15198-2 / J-6545-6 | 2 ea. | S/N T1883297T & up |
| 205, 205A | J-6545-1 | 4 | |
| 206 (new) | | | |
| P206, P206A-E | J-12453-1 / -2 | 2 ea. | |
| TU206A-F | J-12453-1 / -2 | 2 ea. | |
| U206 | J-12453-1 / -2 | 2 ea. | |
| 207, 207A, 207A II | J-12453-1 / -2 | 2 ea. | |
| 208 | LM-600-60 (Spacer) | 3 | * |
| 208 | LM-600-9 (Sand) | 6 | * |
| 210, 210A-C | J-6545-1 | 4 | |
| 210D-L | J-12453-1/-2 | 2 ea. | |
| P210R | J-12453-1/-2 | 4/2 | |
| T210F-L | J-12453-1/-2 | 2 ea. | |
| T210M, N | J-12453-1/-2/SPEC | 2 / 1 / 1 | SPEC is Cessna part |
| 310J-Q | J-12390-1 | 8 | |
| 310R, T310 | J-9613-58 | 8 | |
| 320, 320A-C | J-7764-4 | 8 | |
| 320D-F | J-9613-31 or -58 | 8 | 2 Con TSI0-520-B, BB |
| 335 | J-9613-58 | 8 | |
| 336 | J-7764-10 | 8 | |
| 337, 337A-H, P337H | J-9613-31 | 8 | |
| T337B-G | J-9613-31 | 8 | |
| 340, 340A | J-9613-58 | 8 | |
| 401, 401A, B | J-9613-58 | 8 | |
| 402, 402A, B, C | J-9613-58 | 8 | |

| MODEL | LORD PART NO. | NO. PER A/C | SPECIAL INFORMATION |
|--------------------------------|----------------------|-------------|----------------------------|
| CESSNA (continued) | | | |
| 404 | J-9613-54 | 8 | |
| 414, 414A | J-9613-58 | 8 | |
| 421, A, B, C | J-9613-54 | 8 | |
| 425 | LM-600-20 (Spacer) | 6 | * |
| 425 | LM-600-9 (Sand) | 12 | * |
| 441 | 200PE1210-45 | 2 | * |
| 441 | LM-600-12 (Spacer) | 6 | * |
| 441 | LM-600-9 (Sand) | 12 | * |
| 500/501 | LM-420-SA5 / -SA6 | 4 / 2 | * |
| 550/551 | LM-420-SA23/30/31 | 2 ea. | * |
| DASSAULT | | | |
| FALCON 50 | LM-833-SA9 | 2 | |
| FALCON 50, 90, 900EX | LM-833-SA13 | 2 | Engine 2 Isolator |
| FALCON 50, 900 | LM-833-SA10 | 2 | Center Engine Isolator |
| FALCON 50EX | LM-833-SA20-6/SA18-1 | 4 / 2 | Side Engines |
| FALCON 50EX | LM-833-SA21 / -SA22 | 2 / 1 | Center Engine Isolator |
| DeHAVILLAND | | | |
| DHC6-100/200/300 | J-23379-1 | 6 | 5906-2SA5 Ovhl Parts Kit |
| EMBRAER | | | |
| EMB-810 | J-9613-58 | 8 | |
| EMB-820 | J-9613-12 | 8 | |
| GAF AUSTRALIA | | | |
| N 22B, N24A | LM-206-SA8-1 | 6 | |
| GULF AMERICAN | | | |
| AA-1 | J-6113-5 | 8 | |
| AA-1C, AA-5, AA-5A | J-7402-24 | 4 | |
| AA-5B | J-9613-49 | 4 | S/N 0001-0399 |
| AA-5B, AG-5B | J-9613-59 | 4 | S/N 0399 & up |
| AA-1A, B | J-6113-5 | 8 | |
| GA-7 | J-9613-49 | 8 | |
| 111, 112, 112B, 112T, 112TCA | J-9613-40 / -53 | 2 ea. | |
| 500 | J-3804-20 | 8 | |
| HELIO | | | |
| H-250 | J-9613-12 | 4 | |
| LAKE AIRCRAFT | | | |
| LA-4A, LA-4-200 | J-7402-6 | 4 | |
| LEARJET | | | |
| 28, 29 | LM-308-SA4 | 2 | * |
| 23, 24, 24D/E, 28, 29 | LM-308-19, -33 | 4 / 2 | * |
| 23, 24 | LM-308-SA4 | 2 | * |
| 24D, E | LM-308-SA4 | 2 | * |
| 35, 35A, 36, 36A | LM-833-SA4 / -SA5 | 4 / 2 | * |
| MAULE | | | |
| M-4-210, -210C, S, T, M-5-210C | J-7764-10 | 4 | |
| M-5-235C, M-6-235 | J-7764-20 | 4 | |
| MOONEY | | | |
| M20B | J-7402-1 | 4 | S/N 1701 to 1939 |
| M20C | J-7402-1 | 4 | S/N 1940 to 20-1258 |
| M20D | J-7402-1 | 4 | S/N 101-260 |
| M20E | J-7402-16 | 4 | S/N 101 to 470 |
| M20E | J-9613-12 | 4 | S/N 471 to 21-1180 |
| M20F | J-9613-12 | 4 | S/N 1 thru 22-1438 |
| M20G (1968-70) | J-7402-1 | 4 | 680001 to 700006 |
| M20J | J-9613-40 | 4 | S/N 24-0001 & up |
| M20K (1979-85) | J-9613-58 | 4 | 1 Con TSI0-360-GB1 |
| M20K (1979-85) | J-9613-75 / -76 | 1 / 3 | 1 Con TSI0-360-GB3 or -MB1 |
| M20 various | J-11968-14 | | Landing Gear Shock Disc |

| MODEL | LORD PART NO. | NO. PER A/C | SPECIAL INFORMATION |
|-------------------------|-------------------|-------------|--|
| NEW ZEALAND AERO | | | |
| FU24-954 | J-9613-9 / -24 | 2 ea. | |
| FU24A-954 | J-9613-9 / -24 | 2 ea. | |
| PARTENAVIA | | | |
| P-68 | J-9613-40 | 4 | |
| PIPER | | | |
| 620 XL, -31T2 | LM-423-SA1, -SA12 | 2 | |
| PA-23-250 | J-3804-20 | 8 | S/N 27-1 to 27-2504 |
| PA-23-250 | J-9613-12 | 8 | |
| PA-23-250T | J-9613-12 | 8 | |
| PA-24-250 | J-3804-20 | 4 | S/N 24-103 up |
| PA-24-250 | J-3804-41 | 4 | w/McCauley Prop STC |
| PA-24-260 | J-3804-20 | 4 | S/N 24-33642/400-4782 |
| PA-24-400 | J-9613-24 / -9 | 2 ea. | |
| PA-25-235 | J-3804-20 | 4 | |
| PA-25-260 | J-3804-20 | 4 | |
| PA-28-140 | J-7402-16 | 4 | S/N 20002-24999 |
| PA-28-140 | J-9613-40 / -53 | 2 ea. | S/N 7, 225, 001 & up, 25000-7,125, 641 |
| PA-28-150 | J-7402-16 | 4 | |
| PA-28-150 | J-7402-24 | 4 | |
| PA-28-151 | J-9613-40 / -53 | 2 ea. | |
| PA-28-160 | J-7402-16 | 4 | S/N 1-507 |
| PA-28-160 | J-7402-24 | 4 | S/N 28-1479 to 1760 |
| PA-28-161 | J-9613-40 / -53 | 2 ea. | |
| PA-28-180 | J-7402-16 | 4 | S/N 1761-4377 |
| PA-28-180 | J-7402-24 | 4 | S/N 330-5149 |
| PA-28-180 | J-9613-40 | 4 | S/N 5150 & up |
| PA-28-181 | J-9613-40 | 4 | |
| PA-28-236 | J-9613-12 | 4 | |
| PA-28R-180 | J-9613-40 | 4 | S/N 30001 & up |
| PA-28R-200 | J-9613-40 | 4 | S/N 35001 & up |
| PA-28R-201 | J-9613-40 | 4 | S/N 28R-7737002 & up |
| PA-28R-201T | J-9613-58 | 4 | |
| PA-28S-160 | J-7402-16 | 4 | S/N 508-1478, 1761-4377 |
| PA-30 | J-9613-19 | 8 | |
| PA-31 | J-9613-12 | 8 | |
| PA-31-300 | J-9613-30 | 8 | |
| PA-31-310 | J-9613-12 | 8 | |
| PA-31-325 | J-9613-12 | 8 | |
| PA-31-350 | J-9613-29 | 8 | |
| PA-31T-1, -500, -620 | LM-423-SA1 / SA12 | 4 / 2 | |
| PA-32-260 | J-3804-27 | 4 | S/N 32-570 & up |
| PA-32-260 | J-7402-20 | 4 | S/N 32-1 to 32-569 |
| PA-32-300 | J-3804-27 | 4 | S/N 32-40001 to 32-7240055 |
| PA-32-300 | J-3804-40 | 4 | S/N 7240056 & up |
| PA-32-301 | J-9613-12 / -19 | 2 ea. | |
| PA-32R-300 | J-3804-31 | 4 | S/N 32R7680001 & up |
| PA-32R-300 | J-3804-40 | 4 | S/N 32R7680141 & up |
| PA-32R-301 | J-9613-12 / -19 | 2 ea. | |
| PA-32RT-300 | J-3804-40 | 4 | |
| PA-32RT-300T | J-3804-37 / -39 | 2 ea. | |
| PA-34-200 | J-9613-40 | 4 | |
| PA-34-200, 200T | J-9613-58 | 4 | |
| PA-38-112 | J-7402-16 | 4 | |
| PA-39 | J-9613-19 | 8 | |
| PA-44-180T | J-9613-40 | 8 | |
| PA-46-310P MALIBU | J-9613-55 | 4 | 8408001-87, 8508109-109, 4608001-140 |
| PA-46-350P | J-9613-55 | 4 | S/N 4622001 & up |

| MODEL | LORD PART NO. | NO. PER A/C | SPECIAL INFORMATION |
|--|---------------------|-------------|---|
| RAYTHEON | | | |
| E18S-H18S | J-5384-1 / J-5385-1 | 4 ea. | |
| 19A, M19A, B19 | J-7402-16 | 4 | |
| A23, A23-24 | J-10778-4 | 4 | |
| C-23 | J-7402-16 | 4 | |
| 24, A24/R, B24R, C24R | J-10778-14 / -16 | 2 ea. | |
| E33, F33 | J-7518-2 | 4 | |
| E33A, C, F33A, C, G33 | J-10520-1 | 4 | |
| 35, A35, B35 | J-2245-1 | 8 | |
| E35, F35, G35 | J-3049-17 | 8 | |
| H35 thru P35 | J-7518-2 | 4 | |
| S35, T35, V35A, V35B / TC | J-10520-1 | 4 | |
| 36, A-36 | J-10520-1 | 4 | |
| A36TC | J-10520-1 | 4 | |
| B50, C50 | J-3804-10 | 8 | |
| E50, F50, G50, H50, J50 | J-6545-1 | 4 | |
| 55, A55, B55 | J-7518-2 | 4 | S/NTC1 to TC15 |
| 55, A55, B55, B55A | J-9613-5 | 4 | S/N TC176 thru TC-1254 |
| C55, C55A, D55, D55A, E55, E55A | J-10778-16 | 8 | |
| 56TC, A56TC | J-9613-9 | 8 | |
| 58 | J-10778-16 | 8 | |
| 58P, 58TC | J-12453-12 | 8 | |
| 60, A60, B60 | J-9613-9 | 8 | |
| 65, A65 | J-6545-1 | 8 | |
| 70 | J-6545-1 | 8 | |
| 76, 76TC | J-9613-49 / -50 | 2 ea. | |
| 77 | J-7402-1 | 4 | |
| 80, A80, B80 | J-6545-1 | 4 | |
| 95, B95, B95A | J-7402-1 | 8 | |
| D95A, E95 | J-7402-1 | 8 | |
| C90, C90A | LM-427-SA7 | 6 | |
| E90, F90, A100 | LM-427-SA7 | 6 | |
| B100 | LM-821-SA49/-SA50 | 4 / 2 | |
| 200, B200, 200C, 200CT | LM-427-SA7 | 8 | |
| C90, E90, C99, | LM-427-SA12 | 3 | Overhaul Kit for Barry Controls P/N 5906-2SA9 |
| 200, 200C, 200CT, A200, A200C/CT, B200, B200C/CT/T | LM-427-SA12 | 4 | Overhaul Kit for Barry Controls P/N 5906-2SA9 |
| MU-2B-20 | LM-821-SA40/-SA41 | 4 / 2 | S/N 224 & up |
| MU-2B-25/-26 | LM-821-SA47 / -SA48 | 4 / 2 | S/N 280 & up |
| MU-2B-60 | LM-821-SA47 / -SA48 | 4 / 2 | all effective S/N |
| MU-300, MU-300-10 | LM-420-SA15 / -SA16 | 4 / 2 | |
| 400 | LM-420-SA15 / -SA16 | 4 / 2 | |
| RILEY | | | |
| Dove Convers. | J-9613-9 | 8 | |
| SHORT BROS. | | | |
| SC, 7, Series 3 | LM-821-SA22/24/31 | 2 ea. | |
| SIAI-MARCHETTI | | | |
| S-208, SF-260 / M / W | J-3804-20 | 4 | |
| SOCATA | | | |
| 235C, E | J-9613-40 | 4 | |

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*Purchase spares from aircraft manufacturer