

PMA Products, Inc.
CANCELLATION OF SERVICE BULLETIN NO. 6
Dated 8 AUG 2017

PURPOSE: The purpose of this notification is to inform interested parties that PMA Products, Inc. has canceled its Service Bulletin No. 6, dated AUG 1, 2017.

BACKGROUND: Late in the afternoon of JUL 27, 2017, PMA Products, Inc. received notification that one of its control wheel universals, p/n CA62834-000, had failed in an aircraft in TN. The aircraft did not get in the air (it was taxiing), no damage was done, and there were no injuries. The subject universal had just been installed...failure was prior to the first flight. PMA Products, Inc. promptly notified the FAA as required.

ACTION: PMA Products, Inc. immediately sent universal samples from all of our existing lots to be torque tested. Test results indicated that these samples did not meet the MIL Spec torque requirement. After consulting with the FAA, PMA Products, Inc. had tooling fabricated to test further universal samples in a different manner, attempting to more closely simulate the installation in the aircraft.

These additional tests did indicate that the universals do meet the minimum torque requirement (which is greatly higher than a pilot would ever exert on the universal). Further, failure analysis of the part that originally failed indicated a stress point that had been created in a fastener hole that could have contributed to the failure. The analysis also confirmed the validity of the universal material as having the correct characteristics for that material.

Based on our testing and on the failure analysis, and in consultation with the FAA, PMA Products, Inc. has elected to cancel its Service Bulletin No. 6.

CONCLUSION: We understand that many owners/operators were not happy with initial calls to our distributors in which we asked that the affected universals be immediately removed. Given the information that we initially had on the part that failed, and the extremely serious nature of that incident, we would do the same thing again.

We will always make decisions on the side of safety, even if that decision inconveniences us and our customers...even if that decision costs us or our customers. Safety is paramount and always will be. As our initial SB states, for customers who have already removed universals due to our SB and replaced them, we will reimburse them \$450 for any affected universal that is returned to us. For any distributors who have returned stock to us, we will reimburse them for the cost of that stock.

We regret the inconveniences to our customers and our distributors, but until the required testing could be conducted in order to get answers, we did what we felt was right and safe.

The universals which we have identified in our SB No. 6, are considered safe and airworthy.

Charles G. Causey, President, PMA Products, Inc.



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Ph. 336-685-0078 or 800-762-0844

SERVICE BULLETIN

No. 6

Rev. IR

PMA Products, Inc. CONSIDERS COMPLIANCE MANDATORY

Release Date: Aug 1, 2017 **CANCELLATION DATE: Aug 8, 2017**

SUBJECT: INSPECT OR REPLACE ALL PMA PRODUCTS, INC. CONTROL SHAFT UNIVERSALS, P/N CA62834-802 and CA62834-000 per the following effectivity. (Two universals may be installed per aircraft, one left and one right control wheel shaft)

EFFECTIVITY: The following aircraft with PMA Products, Inc. p/n CA62834-802 or CA62834-000 control wheel shaft universals-- Note: The affected CA62834-802 universals have been available for installation beginning July 8, 2015. The affected CA62834-000 universals have been available for installation beginning Aug. 9, 2016. The universal hub which attaches to the sprocket is imprinted with the following information:

03705/ 12-PF-744		03705/ 12-PF-780
JAN 2015 (or later date)	OR	JAN 2015 (or later date)
FAA-PMA		FAA-PMA
CA62834-802 (or CA62834-000)		CA62834-802

GROUP 1 (for CA62834-802)

PIPER MODELS

SERIAL NUMBERS

PA-28-140	28-21846 thru 28-21930, 28-21935 thru 28-26946, and 28-7125001 thru 28-7725290.
PA-28-150 and -160	28-3378 thru 28-4377.
PA-28-180	28-3378 thru 28-5859 and 28-7105001 thru 28-7205318.
PA-28S-180	28-3378 thru 28-5859, 28-7105001 thru 28-7105234, 28-7305001 thru 28-7505260, and 28-E13.
PA-28-235	28-10720 thru 28-11378, 28-7110001 thru 28-7210023, 28-7310001 thru 28-7710089, and 28E-11.
PA-28-236	28-7911001 thru 28-8611008, and 2811001 thru 2811050.
PA-28-151	28-7415001 thru 28-7715314.
PA-28-161	28-7716001 thru 28-8216300, 28-8316001 thru 28-8616057, 2816001 thru 2816119, 2841001 thru 2841365, and 2842001 thru 2842305.
PA-28-181	28-7690001 thru 28-8690056, 28-8690061, 28-8690062, 2843001 thru 2843672, and 2890001 thru 2890231.



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Effectivity continued for GROUP 1 (for CA62834-802)

PIPER MODELS

SERIAL NUMBERS

PA-28-201T	28-7921001 thru 28-7921095.
PA-28R-180	28R-30002 thru 28R-31270 and 28R-7130001 thru 28R-7130013.
PA-28R-200	28R-35001 thru 28R-35820, 28R-7135001 thru 28R-7135229, and 28R-7235001 thru 28R-7635545.
PA-28R-201	28R-7737002 thru 28R-7837317, 2837001 thru 2837061, and 2844001 thru 2844138.
PA-28R-201T	28R-7703001 thru 28R-7803374 and 2803001 thru 2803012.
PA-28RT-201	28R-7918001 thru 28R-7918267 and 28R-8018001 thru 28R-8218026.
PA-28RT-201T	28R-7931001 thru 28R-8631005 and 2831001 thru 2831038.
PA-32-260	32-601 thru 32-1297 and 32-7100001 thru 32-7800008.
PA-32-300	32-40000 thru 32-40974 and 32-7140001 thru 32-7940290.
PA32S-300	32S-40000 thru 32S-40974 and 32S-7140001 thru 32S-7240137.
PA-32R-300	32R-7680001 thru 32R-7880068.
PA-32RT-300	32R-7885002 thru 32R-7985106.
PA-32RT-300T	32R-7787001 and 32R-7887002 thru 32R-7987126.
PA-32R-301	32R-8013001 thru 32R-8613006, 3213001 thru 3213103, and 3246001 thru 3246244.
PA-32R-301T	32R-8029001 thru 32R-8629008 and 3229001 thru 3229003.
PA-32-301	32-8006002 thru 32-8606023, 3206001 thru 3206019, 3206042 thru 3206044, 3206047, 3206050 thru 3206055, and 3206060.
PA-32-301T	32-8024001 thru 32-8424002.
PA-32R-301T	3257001 thru 3257483.
PA-32-301FT	3232001 thru 3232074.
PA-32-301XTC	3255001 thru 3255027, and 3255051.
PA-34-200	34-E4 and 34-7250001 thru 34-7450220
PA-34-200T	34-7570001 thru 34-8170092.
PA-34-220T	34-8133001 thru 34-8633031, 3433001 thru 3433172, 3447001 thru 3447029, 3448001 thru 3448079, and 3449001 thru 3449377.
PA-44-180	44-7995001 thru 44-8195026, 4495001 thru 4495013, and 4496001 thru 4496251.
PA-44-180T	44-8107001 thru 44-8207020.



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GROUP 2 (for CA62834-000)

PIPER MODELS

SERIAL NUMBERS

PA-28-140	28-20001 thru 28-21845, and 28-21931 thru 28-21934.
PA-28-150 and -160	28-03, 28-1 thru 28-1760, 28-1760A, and 28-1761 thru 28-3377.
PA-28-180	28-03, 28-671 thru 28-3377.
PA-28S-160	28-1 thru 28-1760, and 28-1760A.
PA-28S-180	28-671 thru 28-3377.
PA-28-235	28-10001 thru 28-10719.
PA-32-260	32-03, 32-04, and 32-1 thru 32-600.
PA-32-300	32-15 and 32-21.
PA-32S-300	32S-15.

COMPLIANCE TIME: This SERVICE BULLETIN is effective Aug 1, 2017. Affected universals must be inspected or replaced **BEFORE FURTHER FLIGHT**. PMA PRODUCTS, Inc. considers this Service Bulletin to be **Mandatory**.

APPROVAL: THE CONTENT OF THIS SERVICE BULLETIN HAS BEEN REVIEWED AND APPROVED BY THE FAA.

REASON: UNSAFE CONDITION: On 27 July 2017, PMA Products, Inc. became aware of a CA62834-000 universal that had failed during taxi for takeoff. Subsequent testing indicated a possibility of embrittlement and weakness in other units from the same lot. Both universal part numbers CA62834-000 and CA62834-802 are affected in this same lot. PMA Products, Inc. considers immediate inspection or replacement of the affected universals to be mandatory.

INSTRUCTIONS:

Inspection: The control wheel universals are located at the forward end of both (left and right) control wheel shafts. If an initial inspection of the universal(s) shows the markings in "EFFECTIVITY" on page one of this Service Bulletin, the affected universal **MUST** be inspected prior to further flight. Inspect, using good lighting, for any visible cracks around the circumference of the part on both ends and for cracks originating from any fastener hole. If cracks are detected, the universal **MUST** be replaced before further flight.

If no cracks are detected, this inspection is to be repeated each 100 hours of flight time until the universal is replaced per the instructions that follow.



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Replacement: The control wheel universals are located at the forward end of both (left and right) control wheel shafts. If an examination of the installed universals indicates that they are affected by this Service Bulletin, replace the affected universal as follows: (If necessary, reference the applicable aircraft maintenance manual "Surface Controls" section and Piper Service Bulletin 1197D)

1. Gain access to the universal at the forward end of the control wheel shaft.
2. Remove the fastener (either taper pin or hex head bolt) attaching the universal to the sprocket shaft. This will be at the forward end of the universal.
3. Remove the bolts attaching the control wheel shaft to the universal.
4. Remove the universal from the aircraft.
5. Install an airworthy replacement universal. Some fastener holes may have to be drilled in the new replacement parts. For proper rigging, holes in the new universal must be match drilled to the same size and location as those in the removed part. Holes for taper pins must be pilot drilled to .205 and reamed to the proper size and depth using a No. 1 tapered reamer.
6. When the universal is installed on the sprocket shaft, **THE UNIVERSAL MUST ENGAGE THE SPROCKET SHAFT SUFFICIENTLY TO COVER THE WITNESS HOLE IN THE UNIVERSAL** (reference Piper SB 1197D if needed).
7. Fasteners may be re-used if undamaged and airworthy. Install new locking nuts. Torque the nut on the taper pin to 35 to 40 inch pounds. Torque the 10-32 nuts on bolts to 25 to 30 inch pounds.
8. Check control surface rigging and if needed, adjust and re-rig per the applicable AMM section.
9. Make log book entry for return to service.

MATERIAL REQUIRED: For each universal that is replaced:

For Group 1 aircraft listed above: (1) PMA Products, Inc. p/n CA62834-802SS universal
or

- (1) Piper p/n 62834-802 universal.
- (1) Nut for taper pin, Piper p/n 404-156 or MS21083N3.
- (2) 10-32 nuts for bolts, Piper p/n 404-156 or MS21083N3.

If a new taper pin is needed, the Piper p/n is 480-730 (AN386-1-6A).

If new aft hex head attachment bolts are needed, the Piper p/n is 66546-000.

For Group 2 aircraft listed above: (1) Piper p/n 62834-000 universal.

- (3) Nuts for attachment bolts, Piper p/n 404-526 or MS21042-3.

If new attachment hex head bolts are needed, the Piper p/n is 401-270 or AN3-11A.

RELEASE DATE: Aug 1, 2017

PMA Products, Inc. CONSIDERS COMPLIANCE MANDATORY

WARRANTY INFORMATION: For each universal meeting the requirements in “Effectivity” above, which is returned to PMA Products, Inc., we will reimburse the owner or operator \$450. Any returned universal which does NOT meet the “Effectivity” requirements will NOT be reimbursed.

In order to receive reimbursement, each returned universal must include the name of the owner or operator, address, and contact information (phone number or e-mail).

If you have questions, please contact PMA Products, Inc. at 800-762-0844 or 336-685-0078 or e-mail to sales@pmaproducts.com

WEIGHT AND BALANCE and **ELECTRICAL LOAD DATA** are not affected by this SB.

