



8301 Imperial Dr.
Waco, Texas 76712

SERVICE BULLETIN

NO. A3068-71-2

POWER PLANT - FAN COWLING - HOLD OPEN ROD
REBOND FITTINGS

I PLANNING INFORMATION

A. Effectivity

(1) Component Affected

This Service Bulletin affects hold open rods NORCO Part No.'s A3068-1 AND A3068-3, Rohr Part No.'s 238D1025-501 and 238D1025-503 respectively.

(2) Spares Affected

Not applicable.

B. Reason

This Service Bulletin will provide a repair procedure to rebond aluminum/carbon fiber joints that have unbonded in service.

C. Description

This Service Bulletin is to inform all users of the procedures and detailed instructions for rebonding Norco hold open rod assemblies A3068-1 and A3068-3. The procedures describe removing separated or loose aluminum fittings from the carbon fiber tubes, cleaning, rebonding, and proof testing.

D. Approval

The repair and modifications herein comply with the applicable Federal Aviation Regulations (FARs) and are approved by Rohr Industries, Inc.

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E. Manpower

Required to remove Strut Assembly from Aircraft	.5 hrs.
Remove loose fitting and rebond	2.0 hrs.
Replace Strut Assembly in Aircraft (48 Hrs. required before installation)	.5 hrs.
TOTAL	3.0 hrs.

F. Material Cost and Availability

No new parts are required to rebond a fitting unless the fitting is damaged beyond repair. New fittings may be obtained from Norco, Inc.

DIRECT PURCHASE ORDER TO: MarathonNorco Aerospace, Inc,
8301 Imperial Dr.
Waco, Texas 76712
254-776-0650 Main Line
254-776-6558 Fax

G. Tooling - Cost and Availability

Not applicable.

H. Weight and Balance

Not applicable.

I. Other Publications Affected

Component Maintenance Manual No. 71-13-14 for Hold Open Rods, Part No.'s A3068-1 and A3068-3 to be changed accordingly.

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II ACCOMPLISHMENT INSTRUCTIONS

A. Disassembly

- (1) Remove all grease and dirt from exterior surfaces of hold open rod. Clean parts with lint-free cloth moistened with dry cleaning solvent, 1-1-1 trichloroethane or equivalent.
- (2) Separated Fitting - Heat remaining adhesive in channel of fitting with an electric heat gun. Apply heat uniformly around circumference of fitting until adhesive softens. Use a small screwdriver to lift adhesive layer out of channel, if possible. Remove any remaining adhesive with an Exacto knife. Do not remove black anodized finish.

CAUTION: Do not sand aluminum surface to remove adhesive.

- (3) Loose Fitting - Install hold open rod in load test fixture in the fully extended and locked position. Apply a tensile load of 500 lbs. Heat loose fitting with an electric heat gun. Apply heat uniformly around circumference of fitting until fitting pulls off of carbon fiber tube. Remove from test fixture. Remove adhesive layer from channel in fitting while still hot. Use a small screwdriver to lift adhesive layer out of channel. Remove any remaining adhesive with an Exacto knife. Do not remove black anodized finish.

CAUTION: Do not sand aluminum surface to remove adhesive.

Remove rod end assembly (AM3068-1-51) before rebonding end collar (AM3068-1-17) shown in Figure 1.

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- (4) Wipe off excess powdered adhesive from carbon fiber tube. Sand off any remaining adhesive with No. 180 emery cloth. Lightly sand entire bond surface with No. 180 emery cloth. Wipe off with clean cloth.

B. Assembly

- (1) Bonding should be done in a clean dust-free environment having controlled temperature and humidity.
- (2) Dry fit aluminum fitting on carbon fiber tube to check for any interference. Fitting should slide freely over tube.
- (3) Clean aluminum bonding surface with a lint-free cloth moistened with dry cleaning solvent, 1-1-1 trichloroethane or equivalent. Allow to air dry for 30 minutes.

CAUTION: Do not touch bonding surface after drying.

- (4) Clean carbon fiber bonding surface with a lint-free white cloth moistened with dry cleaning solvent, 1-1-1 trichloroethane or equivalent. Repeat cleaning until white cloth comes away without any black color. Allow to air dry for 30 minutes.

CAUTION: Do not touch bonding surface after drying.

- (5) Mix epoxy in clean glass or stainless steel container. Use (3) stainless steel spatulas. Use (1) spatula for part A and (1) for Part B. Use the third spatula for mixing parts A & B. Weigh equal parts of Part A and Part B on "O" Haus Triple Beam Balance Scale. Mix completely until uniform color is obtained. Mixing time should be two minutes. Do not use epoxy after 45 minutes from time of mixing.
- (6) Apply a thin uniform layer of epoxy to carbon fiber bond area using a stainless steel spatula. Completely fill bonding channel in aluminum fitting.

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- (7) Push fitting on carbon fiber tube using rotating motion. Orient outer tube fittings as shown in Figure 1. Wipe off excess adhesive from outside and inside of carbon fiber tube. Do not disturb bonded joint during initial stages of room temperature cure.
- (8) Cure for 48 hours minimum at room temperature.
- (9) Install hold open rod in load test fixture in the fully extended and locked position. Apply a proof tensile load of 560 lbs. and hold for one minute. Unload, remove from test fixture and check for satisfactory functional operation.

III MATERIAL INFORMATION

A. Parts Required Per Hold Open Rod

No new parts are required to rebond a fitting.

B. Parts Required to Modify Spares

Not applicable.

C. Adhesive Required

Masterbond Supreme 11 HT is a two-part room temperature curing epoxy adhesive required for rebonding fittings.

Direct Purchase Order To: Masterbond Inc.
154 Hobart Street
Hackensack, NJ 07601
201-343-2132

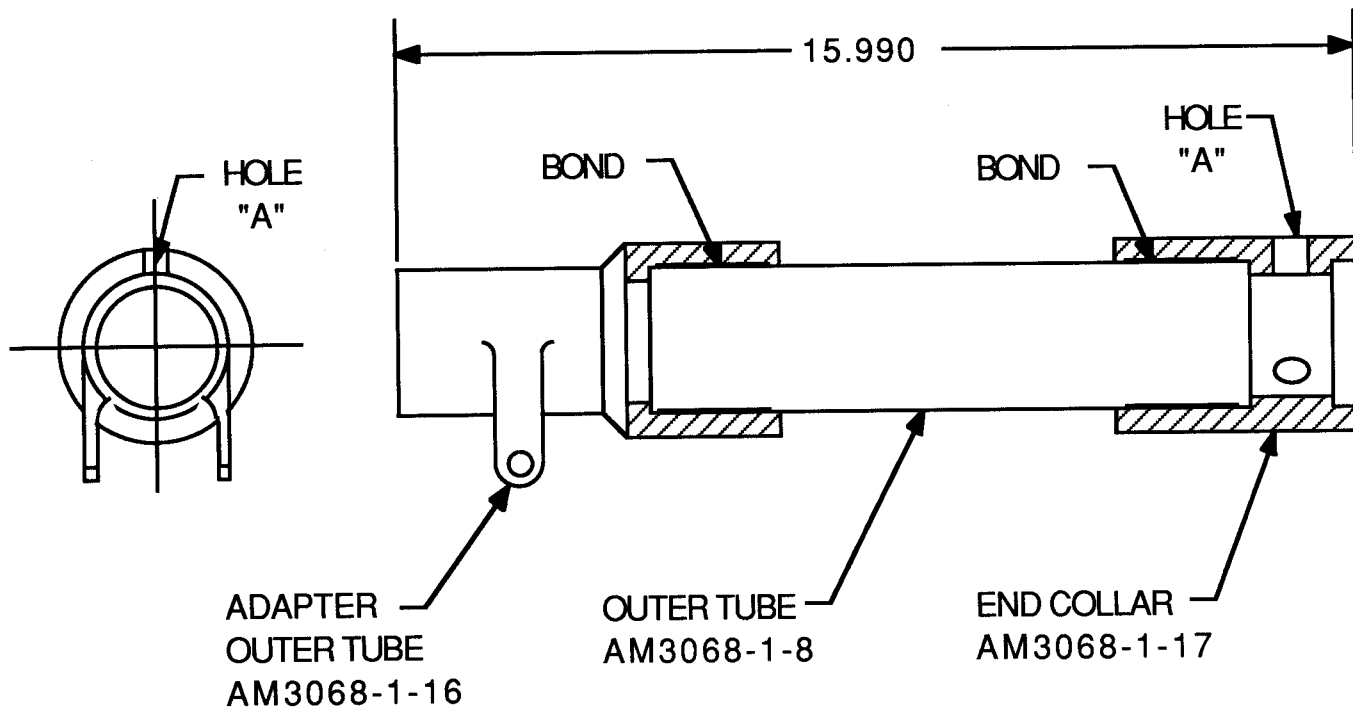
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NOTES

- (1) ORIENT END COLLAR (AM3068-1-17) WITH RESPECT TO ADAPTER, OUTER TUBE (AM3068-1-16).
- (2) REMOVE ROD END ASSEMBLY (AM3068-1-51) BEFORE REBONDING END COLLAR (AM3068-1-17)

FIGURE 1 - OUTER TUBE ASSEMBLY

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