



A Textron Company

TECHNICAL BULLETIN

429-22-67

12 May 2022

MODEL AFFECTED: 429

SUBJECT: HALON FREE CABIN FIRE EXTINGUISHER
INSTALLATION 429-899-007-101, INTRODUCTION
OF.

HELICOPTERS AFFECTED: Serial numbers 57001 and subsequent.

COMPLIANCE: At customer's option.

DESCRIPTION:

Bell is introducing a new cabin fire extinguisher for the model 429 which contains HFC-236fa halocarbon clean agent fire extinguishant. The 429107 Clean Guard fire extinguisher is compliant with recent rules banning the use of halon in cabin fire extinguishers. Additionally, it has an extremely low toxicity level, meeting the requirements for the cabin volume of the Bell 429. Furthermore, the new fire extinguisher features a gauge, making it easy for the crew to determine the level of charge. Finally, an improved mounting bracket which does not require the use of safety wire to secure the fire extinguisher, is also introduced with this bulletin. Applicability of this bulletin to any spare part shall be determined prior to its installation on an affected helicopter.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Product Support Engineering
Tel: 1-450-437-2862 / 1-800-363-8023 / productsupport@bellflight.com

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Approved for public release.

MANPOWER:

Approximately 8.0 man-hours are required to complete this bulletin. This estimate is based on hands-on time and may vary with personnel and facilities available.

WARRANTY:

There is no warranty credit applicable for parts or labor associated with this bulletin.

MATERIAL:**Required Material:**

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Supply Center. The following materials can be purchased as a retrofit kit under part number **429-899-007-101** (QTY 1 required per helicopter), consisting of the following parts:

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty (Note)</u>
429107	Fire Extinguisher	1
429-899-007-123	Shield	1
110-076-10	Grommet	1 FT
429-899-007-121	Bracket	1
MS20427M4-4-5	Rivet	1
NAS1149CN532R	Washer	1
120-225C3T09P	Screw	4

Consumable Material:

The following material is required to accomplish this bulletin, but may not require ordering, depending on the operator's consumable material stock levels. This material may be obtained through your Bell Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty (Note)</u>	<u>Reference *</u>
2000-00279-00	Adhesive, Paste	1 Qt (1)	C-324
2010-05988-00	Sealant	2.5 oz (1)	C-251
Commercial	4508 Black 1.75" WIDE	A/R (2)(3)	C-468
Commercial	Acetone	A/R (2)	C-316
Commercial	Aliphatic Naphtha	A/R (2)	C-305
Commercial	Toluene	A/R (2)	C-306
Commercial	Isopropyl Alcohol	A/R (2)	C-285
Commercial	Cheesecloth, Cotton	A/R (2)	C-486

* C-XXX numbers refer to the consumables list in the BHT-ALL-SPM, Standard Practices Manual

NOTES:

1. Quantity indicated is the format the product is delivered in. Actual quantity required to accomplish the instructions in this bulletin may be less than what has been delivered.
2. As required.
3. The 4508 Black 1.75" WIDE tape is a product of 3M and is commercially available.

SPECIAL TOOLS:

None required.

WEIGHT AND BALANCE:

<u>Weight</u>	<u>Arm</u>	<u>Longitudinal Moment</u>	<u>Arm</u>	<u>Lateral* Moment</u>
-1.4 pounds	158 inch	-221.2 inch-pounds	-3.0 inch	-4.2 inch-pounds
-0.6 kgs	4022 mm	-24.13 kg x mm/100	-82.0 mm	-0.5 kg x mm/100

* In lateral calculations, - is left and + is right.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

BHT-429-MM, Maintenance Manual
BHT-ALL-SPM, Standard Practices Manual

PUBLICATIONS AFFECTED:

BHT-429-MM, Maintenance Manual
BHT-429-IPB, Illustrated Parts Breakdown

ACCOMPLISHMENT INSTRUCTIONS:

1. Prepare the helicopter for maintenance.
2. Gain access to the cabin fire extinguisher by opening the right-hand crew door 200AR.
3. Remove the pilot seat (DMC-429-A-25-10-00-00A-520A-A or DMC-429-A-25-10-00-01A-520A-A)

4. Remove the existing cabin fire extinguisher and bracket (1 and 2, Figure 1) and retain two of the six mounting screws (3). (DMC-429-A-26-20-00-00A-520A-A).
5. Trim and bond the grommet (1, Figure 2) on the shield (2) as follows:

-NOTE-

It is permissible to trim the lips of the grommet in the radius of each corner and at each extremity to improve esthetics.

- a. Trim the grommet (1) to the appropriate length as shown in Figure 2.

-NOTE-

Prepare surfaces and bond the grommet in a dry and dust free area. Urethane based adhesives are highly susceptible to moisture. Keep Container airtight when not in use

-NOTE-

Surfaces to be bonded must be clean, dry, and free from oil or grease.

- b. Remove the paint and/or primer in the faying area by hand sanding with 120 grit (or finer) abrasive paper or cloth. Clean the residue with clean cheesecloth (C-486) dampened with acetone (C-316) or aliphatic naphtha (C-305) followed immediately by dry wiping with cheesecloth. Allow to air dry.
- c. Prepare the metal surface by light abrasion with a 400 grit abrasive cloth, followed by an aliphatic naphtha (C-305) or Acetone (C-316) wipe, using clean cheesecloth (C-486).
- d. Clean the grommet (1) surface with toluene (C-306) or acetone (C-316) using a clean cloth. Do not soak with solvent. Abrade with an 80 grit paper and clean again with toluene (C-306) or Acetone (C-316) using a clean cloth.
- e. Mix, apply and cure the adhesive (C-324) per the manufacturer's instructions while observing pot life.
- f. Bond the grommet (1) to the shield (2). For optimal adhesion, the thickness of the bond line should be approximately 0.01 inch (0.254 mm). Clean the residual adhesive.
- g. Filet seal the edges of the grommet (1) with sealant (C-251).

6. Using isopropyl alcohol (C-285), clean the faying surfaces on the shield (2) that will contact the foam tape (C-468). Trim and install the foam tape (C-468) on the shield (2) as shown in Figure 2.
7. Remove the clamp (3, Figure 2) from the original bracket (4) that comes with the new cabin fire extinguisher (5) and attach it to the new bracket (6) as follows:
 - a. Remove the clamp (3) from its original bracket, hand form it to create a flat surface that will mate with the new bracket (6).
 - b. Locally penetrant inspect the formed areas of the clamp (3) per ASTM E1417, Type I, Method A or C, sensitivity level 2 or greater (BHT-ALL-SPM, Chapter 6).
 - (1) If there are linear indications that are confirmed to be cracks, seams, tears, bursts, etc., reject the clamp (3). A replacement fire extinguisher will need to be purchased.
 - c. Clean the faying surfaces of the clamp (3) and bracket (6) with aliphatic naphtha (C-305) and apply sealant (C-251) to the faying surfaces.
 - d. Wet install the rivet (7) and washer (8) using sealant (C-251). The rivet head must be on the outboard side of the bracket and the washer must be on the inboard side of the bracket as shown in Figure 2.
8. Using isopropyl alcohol (C-285), clean the faying surfaces on the bracket (6) that will contact the foam tape (C-468). Trim and install the foam tape (C-468) on the bracket (6) as shown in Figure 2.
9. Insert clamp (3) through the shield's lower window and install the bracket (6) and shield (2) with four screws (9) and screws (10) retained from step 3.
10. Secure the fire extinguisher (5) on the bracket (6) with the clamp (3).
11. Install the pilot seat (DMC-429-A-25-10-00A-720A-A or DMC-429-A-25-10-00-01A-720A-A)
12. Make an entry in the helicopter logbook and historical service records indicating compliance with this Technical Bulletin.

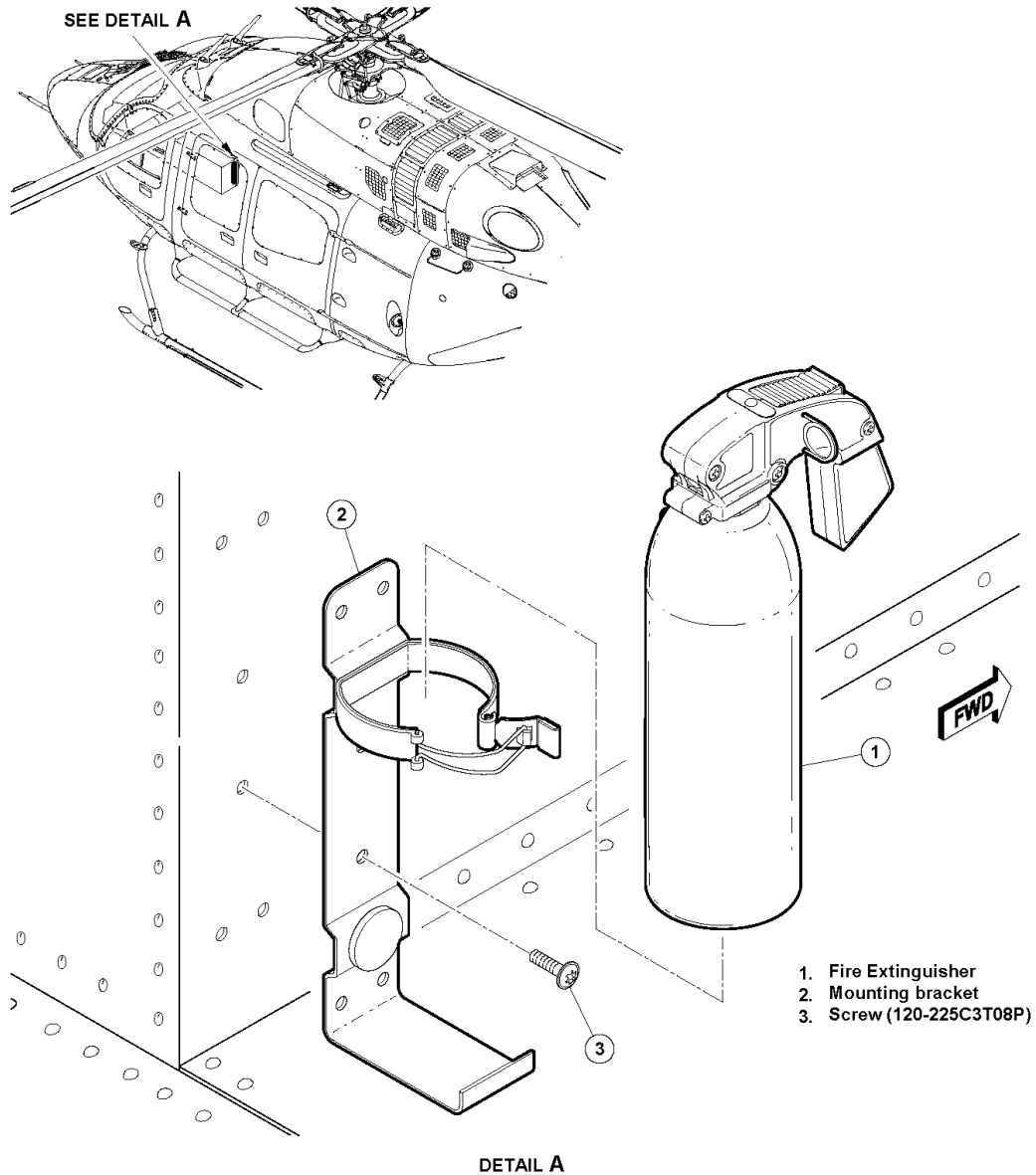
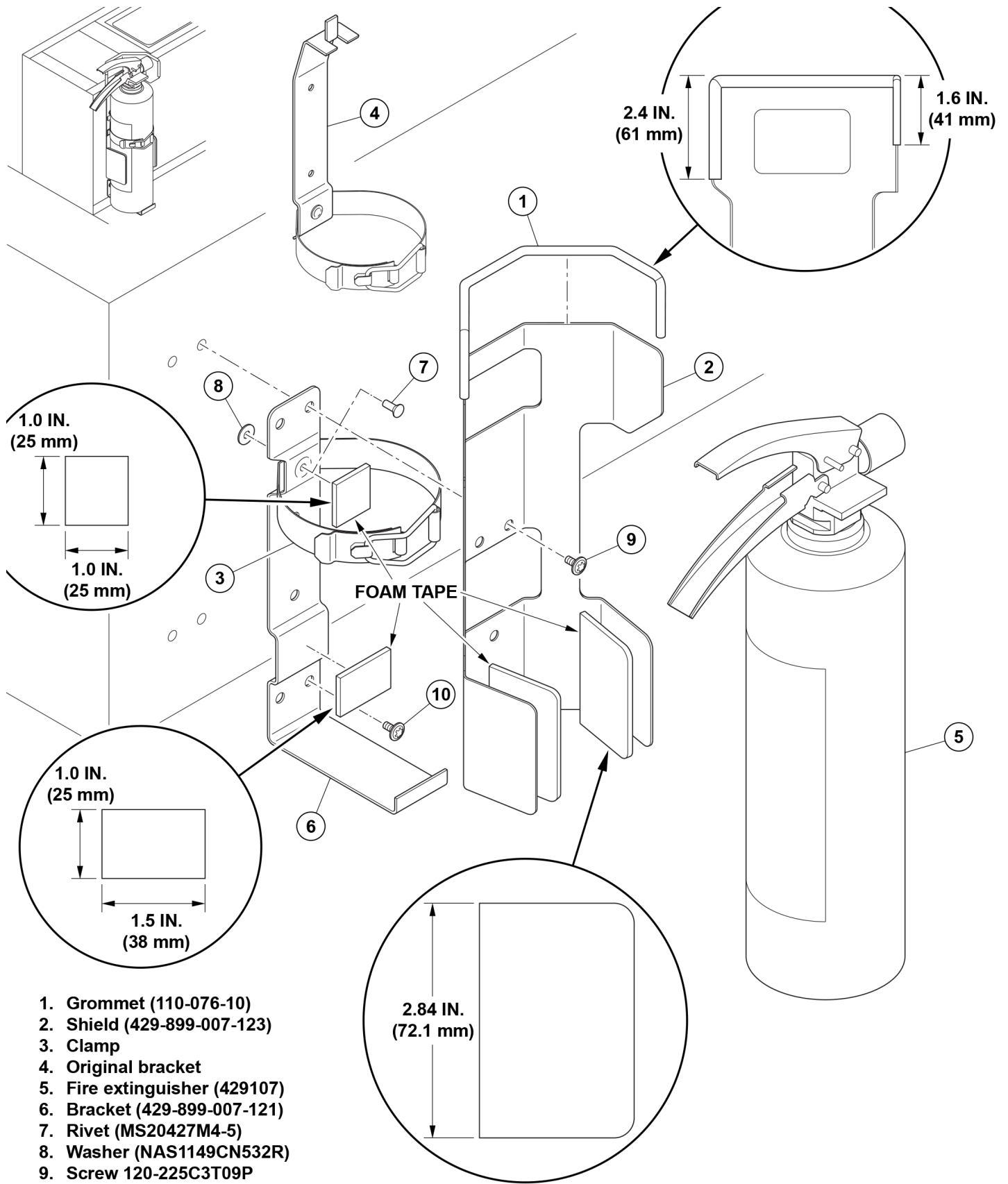


Figure 1- Original Cabin Fire Extinguisher Removal



- 1. Grommet (110-076-10)
- 2. Shield (429-899-007-123)
- 3. Clamp
- 4. Original bracket
- 5. Fire extinguisher (429107)
- 6. Bracket (429-899-007-121)
- 7. Rivet (MS20427M4-5)
- 8. Washer (NAS1149CN532R)
- 9. Screw 120-225C3T09P
- 10. Screw 120-225C3T08P

Figure 2 – Installation of Cabin Fire Extinguisher 429-899-007-101

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