


**Service Bulletin**


**Service Bulletin:** SB A119-3024; Agusta A119 Air Conditioner Oil Cooler Inlet Screen Assembly, Engine Governor Control Cable Guard and Replacement of Compressor Drive Belt.

**Subject:** Installation of A119 Air Conditioner Oil Cooler Inlet Screen Assembly, Engine Governor Control Cable Guard and Compressor Drive Belt.


**Date:** 25 July 2005.

**Revision:** **A**, 25 July 2005, Added A119-3024-1 Screen assembly.  
**B**, 1 August 2005, Added replacement of 950 5M 09, Cog belt.  
**C**, 1 August 2005, Removed reference to Serial numbers 14047 and 14048 and added Serial Numbers 14050 and 14053  
**D**, 23 August 2005, Removed A119-3056-1 Safety Strap, changed details of installation of A119-3502-10 Cable Guard.  
**E**, 1 Sept. 2005, Note  Applies only to S/N 14050.

**Applicability:** Agusta A119 Helicopter, Equipped with the Air Comm Corporation A119-206-1 & -2 Air Conditioning System.

Serial Numbers: 14006, 14011, 14015, 14018, 14019, 14021, 14022, 14023, 14027, 14028, 14030, 14032, 14033, 14034, 14035, 14036, 14037, 14038, 14039, 14040, 14041, 14043, 14045, 14046, 14053, 14050. 

**Reference:** 1. FAA / STC # SR00463DE, Agusta Helicopter A119 Air Conditioning System.  
2. Compressor Installation Drawing # A119-304  
3. Screen Assembly Drawing # A119-3024  
4. Governor Control Cable Guard, Drawing # A119-3502.  
5. Instructions for Continued Airworthiness, A119-200M-1, Rev 6.

**Compliance:** Mandatory (within the next 25 hours of flight after the effective date, 8/5/05 of this bulletin and no later than August 26, 2005.)  
 **Aircraft serial number 14050 is to install the screen only. A separate service bulletin and different design of the Governor Control Cable Guard will be provided at a later date.**

**I. Discussion:**

This document provides for the immediate installation of an inlet screen to the oil cooler housing and a Governor Control Cable Guard on all Agusta A119 aircraft equipped an Air Comm Corporation air conditioner system and replacement of the compressor drive belt.

1. The addition of this screen is the result of a recent belt breakage incident which caused substantial damage to the oil cooler blower fan blades. ACC is providing an inlet screen and clamp assembly to be installed on the inlet side of the oil cooler blower housing. The new inlet screen assembly will provide the necessary protection to prevent future mishaps of this nature from occurring.
2. The addition of a Governor Control Cable Guard to protect the cable in case of debris from a broken air conditioner drive belt.
3. Replacement of the compressor drive belt to assure that every ACC A/C equipped A119 has a new belt that is properly aligned and tensioned.

## II. Approval:

Technical aspects of this Service Bulletin are FAA/DER approved.

## III. Purpose:

The purpose of this bulletin is to provide the necessary information, and required materials for the installation of the A119-3024-1 screen assembly and the A119-3502-10 cable Guard on the Agusta A119.

## IV. Bill of Materials:

### Parts to be installed:

Item	Part Number	Description	Quantity
1.	A119-3024-1	Screen Assy.	1
2.	994FM-1075	Clamp	1
3.	A119-3502-10	Cable Guard	1
4.	CR3213-4-03	Rivet	9
5.	950 5M 09	Belt (Gates)	1
6.	CR3243-5-4	Rivets (Not supplied)	5

## V. Accomplishment Instructions:

### A. A119-3024-1 Screen Assembly

#### Removal

#### NOTE

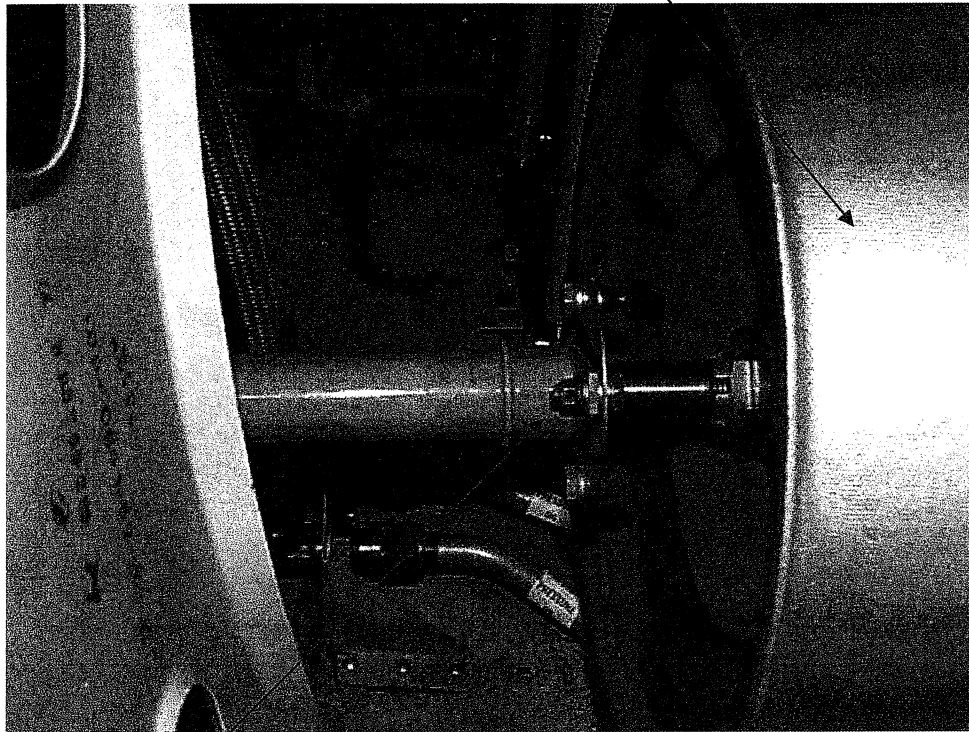
It will not be necessary to discharge the air conditioner system to perform the installation of the Inlet Screen Assy.

1. Disconnect the oil cooler drive shaft coupling just forward of the oil cooler blower inlet area per Agusta A119 Service Manual.

**CAUTION**

Insure that the oil cooler drive shaft is supported so as not to damage the driveshaft or coupling disc.

Oil Cooler Housing



Drive Shaft Coupling

Figure 1

**Installation / Replacement**

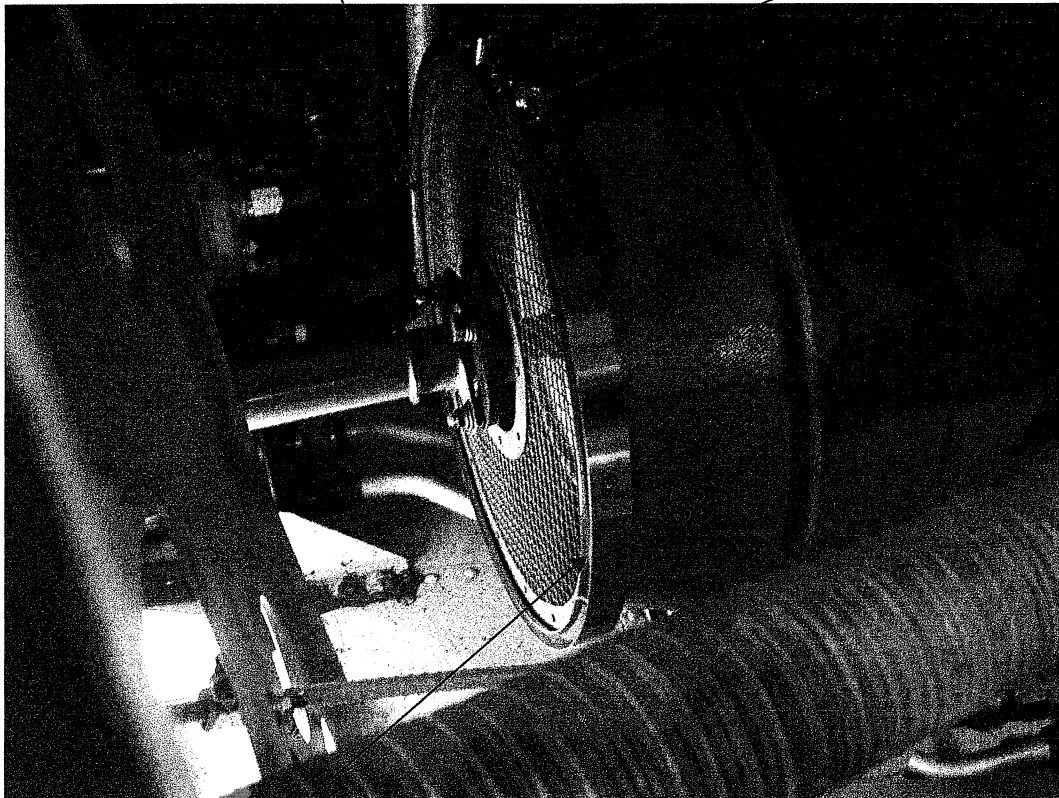
1. Install A119-3024-1 screen assembly between the driveshaft segments placing the screen securely on the forward flange of the oil cooler blower housing.
2. Install the 994FM-1075 clamp around the screen and blower housing flange, and secure in place. Torque the clamp retaining nut to 50 in-lbs, and safety the retaining bolt and clamp halves using .032 safety wire.
3. Reconnect the oil cooler drive shaft coupling just forward of the oil cooler blower inlet area per Agusta A119 Service Manual.

**Weight and Balance**

The weight change is negligible. Therefore no change to the existing weight and balance is required.

A119-3024-1 Inlet Screen

Clamp retaining nut



994FM-1075 Clamp

Figure 2

### **B. Governor Control Cable Guard Assembly.**

The A119-3502-10 Guard mounts to the top side of LH box beam (see Figure 3) in front of bulkhead 109-0647-67-207.

#### **Installation instructions**

1. Remove the two shims attached to the A119-3502-10 Guard by removing existing rivets. Discard the shims.
2. Fill the holes on the Guard where the rivets holding the shims were installed with MS20426A4 rivets.
3. Remove 5 rivets from LH box beam upper inboard angle (3 forward and 2 aft of Rotor Brake Connector Bracket).

- Align the Guard as shown in Figure 3 and verify clearance with the Rotor Brake Connector Bracket.

**NOTE**

Exact location of Rotor Brake Connector Bracket may vary on different aircraft.

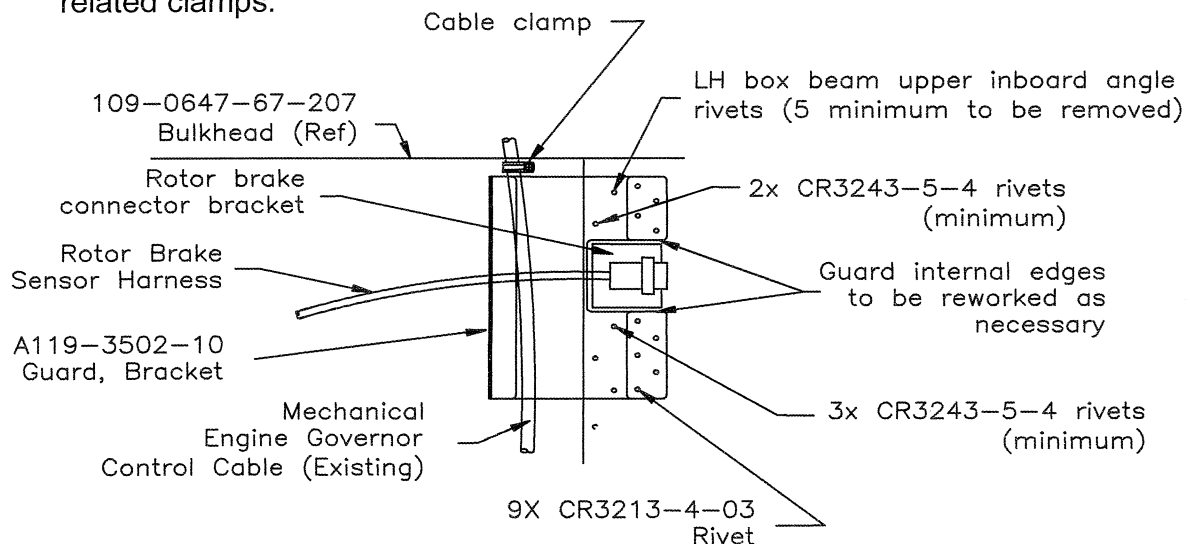
- Evaluate location of the Rotor Brake Connector Bracket and the resultant rivet edge distance on the Guard.
  - If a minimum edge distance of 2 times the diameter cannot be achieved rework the Guard on one of the internal edges until the edge distance becomes acceptable.
  - If position of the Rotor Brake Connector Bracket does not allow the installation of Guard it is acceptable to trim the internal edges of the Guard.
  - If position of the Rotor Brake Connector Bracket does not allow the installation of Guard remove the bracket and relocate it one rivet forward (rivets to be used CR3243-5).

**NOTE** A new Rotor Brake Connector Bracket should be installed if installation of rivets in the relocated position is not possible with existing Rotor Brake Connector Bracket.

**NOTE**

Removing a limited area of Guard to clear existing brackets is permissible.

- Protect reworked areas with primer.
- Install the bracket using proseal 890 (or equivalent) and the Cherry rivets as indicated in Figure 3.
- Relocate mechanical governor cable to avoid chafing with Guard by relocating related clamps.



**Figure 3**

## **C. Replacement and adjustment of the Compressor Drive Belt.**

### **Removal, Replacement & Adjustment of Compressor Drive Belt**

1. It is necessary to access the transmission compartment to remove, replace, or adjust the compressor drive belt.
2. Cut safety wire on the compressor belt tensioning link and the belt tensioning link jam nuts, and loosen the respective jam nut(s).
3. Before attempting to adjust the drive belt tension, insure that the compressor mounting / attaching bolts have been loosened, to allow free movement of the compressor body on the compressor mount.
4. Remove the compressor drive pulley in accordance with the instructions given in paragraph 4. removal, installation / replacement of compressor drive pulley of the A119-200M ICA.
5. Adjust the belt tension link to loosen the belt, and remove belt from the compressor & drive pulley.

### **Replacement**

1. Install the drive belt on the compressor & drive pulleys.
2. Replace the compressor drive pulley in accordance with the instructions given in paragraph 4. removal, installation / replacement of compressor drive pulley of the A119-200M ICA.
3. Adjust belt tension (See Adjustment below).
4. Tighten the belt tensioning link jam nuts and re-safety using .032 safety wire.
5. Re-torque the compressor mounting / attaching bolts to 80 to 100 inch lbs. (9.04 – 11.30 Nm).

### **NOTE**

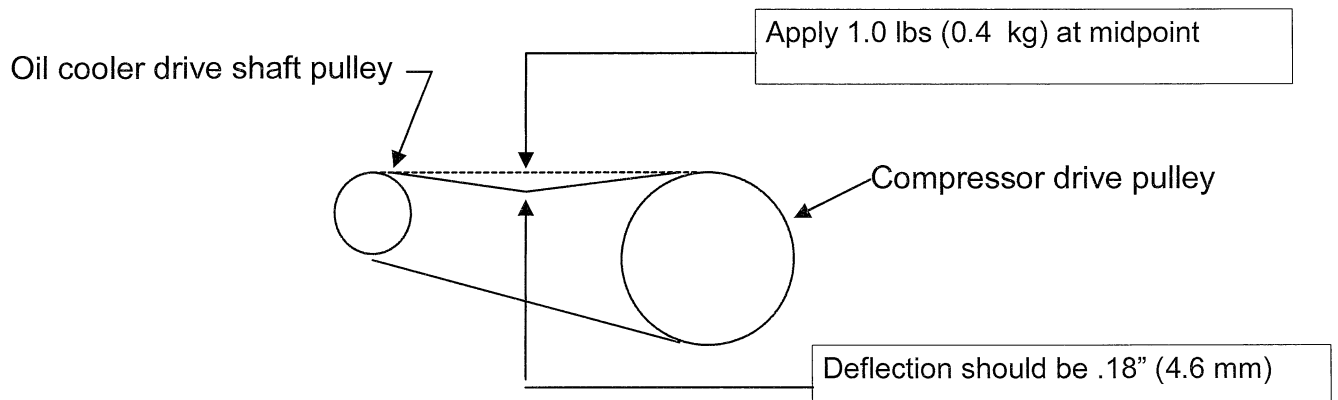
Care should be taken to insure that the new belt is not damaged (nicked or cut) during installation.

## Adjustment

### NOTE

Proper belt tension is important to insure a long belt service life and to avoid excessive loads on the compressor, and bearing assemblies.

1. The correct belt tension for the belt is 1.0 lbs. (0.4 kg.) This can be achieved with the aid of a **belt tensioning tool** (Kent-Moore® BT-33-73F Belt Tension Gauge or Equivalent). (This is the preferred method of obtaining proper belt tensioning).
2. An alternate method is to observe a .18" (4.6 mm) belt deflection when 1.0 lbs (0.4 kg.) of force is applied at the midpoint of the belt.



### NOTE

The belt tension should be checked, and re-adjusted, if necessary after the first two hours of operation for a newly installed belt.

### **NOTICE OF COMPLIANCE**

Upon completion of the requirements of this Service Bulletin, this form must be returned to:

Glen Pfankuch  
Air Comm Corp  
3300 Airport Rd.  
Boulder CO. 80301  
Phone 303-440-4075  
Fax 303-440-6355  
e-mail, info@aircommcorp.com

Aircraft Serial No.	
Total Time in service	
Date Completed	
Performed by	
Owner/Operator	

Please use the space below to comment on any difficulty you encountered while performing these task.