



EMB145 – EMB135

AIRCRAFT  
MAINTENANCE MANUAL

**PRE-COOLER - CLEANING/PAINTING**

*EFFECTIVITY: ALL*

1. General

- A. This section gives the procedures to clean the precooler.
- B. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

<i>TASK NUMBER</i>	<i>DESCRIPTION</i>	<i>EFFECTIVITY</i>
36-11-04-100-801-A ♦	PRECOOLER - CLEANING	ALL



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TASK 36-11-04-100-801-A

EFFECTIVITY: ALL

2. PRECOOLER - CLEANING

A. General

- (1) This task gives the procedure to clean the precooler.

B. References

REFERENCE	DESIGNATION
AMM TASK 36-11-04-000-801-A/400	PRECOOLER - REMOVAL
AMM TASK 36-11-04-300-801-A/200	THERMAL INSULATION OF THE PRE-COOLER OF AIR BLEED SYSTEM -REPAIR
AMM TASK 36-11-04-400-801-A/400	PRECOOLER - INSTALLATION

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Cutter	To cut the sealant I	AR
Commercially available	Acrylic or Polyethylene Spatula	To remove thermal insulation	1
Commercially available	Sandpaper, 240-grit	To break surface gloss	AR
Commercially available	Ultrasonic Bath	To clean parts	

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Safety Goggles	For protection of your eyes	1
Commercially available	Gloves	For protection of your hands	2
Commercially available	Dust Mask	To prevent skin irritations and excessive inhalation	1

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
TT-M-261	Methyl Ethyl Ketone (MEK)	AR
TT-I-735	Isopropyl Alcohol	AR
ML No 2/1	Stripalene 110	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

Not Applicable

I. Preparation

*SUBTASK 841-002-A*

- (1) Remove the precooler ([AMM TASK 36-11-04-000-801-A/400](#)).
- (2) Before you start the cleaning procedure, remove all the thermal insulation from the precooler.
- (3) With the aid of a spatula, remove the thermal insulation from the precooler.
- (4) With the aid of 240-grit sandpaper, remove the remaining thermal insulation from the precooler. Refer to [Figure 701](#).
- (5) Clean the area with methyl ethyl ketone and isopropyl alcohol.
- (6) Make sure that all the sealant was removed from the precooler surface.

J. Clean Precooler by Chemical Method ([Figure 701](#))

*SUBTASK 110-002-A*

**WARNING: OBEY ALL SAFETY STANDARDS FOR USE OF STRIPALENE 110 THAT CONTAINS CAUSTIC SODA AND IS STRONGLY ALKALINE. BE CAREFUL WHEN YOU MIX IT WITH WATER, TO PREVENT SPLASHING. WEAR PROTECTIVE CLOTHING, GLOVES AND CHEMICAL PROOF GOGGLES/FACE SHIELD. DO NOT HANDLE IT WITHOUT PROTECTION. IF YOU DO NOT OBEY THE SAFETY PRECAUTIONS, INJURY TO PERSONS WILL OCCUR.**

- (1) Clean the Precooler as follows:

- (a) Immerse the precooler in a 25% Stripalene 110 (ML No 2/1) and water solution, heated to between 70 and 90 degree celsius, for a period of 2 hours.
- (b) Remove the precooler from the solution and steam clean externally and internally to remove all traces of the solution.
- (c) Flush the bleed-air and cooling-air passages, using de-mineralized water, for 1 hour and drain.
- (d) Oven dry the precooler, at 150 degrees celsius, for 1 hour.
- (e) Circulate dry air through the bleed-air and cooling-air passages for 1 hour.

- (2) Internal Pressure Cleaning:

- (a) Reverse pressure flush the precooler for a period related to the degree of suspected contamination.



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- (b) If precooler fails, refer to the instructions in CMM 36-10-51 Honeywell (Testing and Fault Isolation, step C (2) and (3)).

K. Follow-on

SUBTASK 842-002-A

- (1) Install the precooler thermal insulation ([AMM TASK 36-11-04-300-801-A/200](#)).
- (2) Install the precooler ([AMM TASK 36-11-04-400-801-A/400](#)).

**EFFECTIVITY: ALL**

Precooler - Location

Figure 701



