

NOM : PRENOM :

GRILLE D'EVALUATION

1.3. EPREUVE PRATIQUE EN ATELIER OU SUR AVION

Durée : 3 heures
Coef. : 5

OPERATION A EFFECTUER : ATA 21 SEPARATEUR D'EAU

UTILISATION DE LA DOCUMENTATION	/10 pts
PREPARATION DU POSTE DE TRAVAIL /SECURITE	/20 pts
ETABLISSEMENT GAMME DE TRAVAIL	/ 20 pts
DEPOSE DE L'ORGANE	/ 30 pts
VERIFICATION DE L'ORGANE	/ 30 pts
POSE DE L'ORGANE	/ 30 pts
AUTO CONTROLE ESSAIS	/ 30 pts
REMETTRE EN SITUATION DE VOL	/ 20 pts
RENDRE COMPTE/A.P.R.S.	/ 10 pts
TOTAL	/200 pts

Ramener la note sur 20 : /

Nom et Prénom du notateur :

Signature :

ACADEMIE DE GRENOBLE			SESSION 2002	
EXAMEN : CAP Mécanicien Entretien Avions option T2			DUREE: 3 h	
Epreuve : Epreuve Pratique en Atelier ou sur Avion			COEFFICIENT: 5	
ECHELLE :	Nb Tirages :	SUJET	1	FEUILLE: _____



MAINTENANCE MANUAL

WATER SEPARATOR - REMOVAL/INSTALLATION

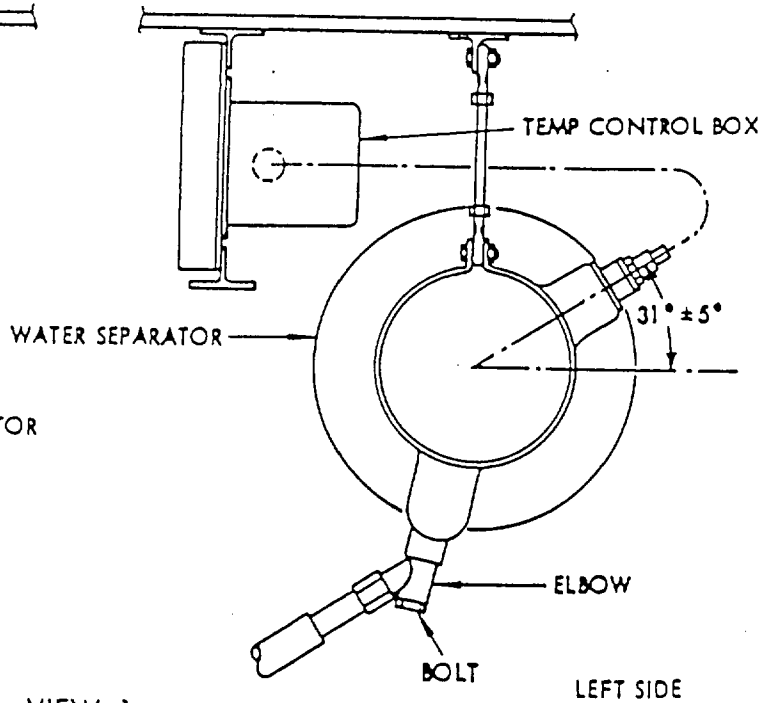
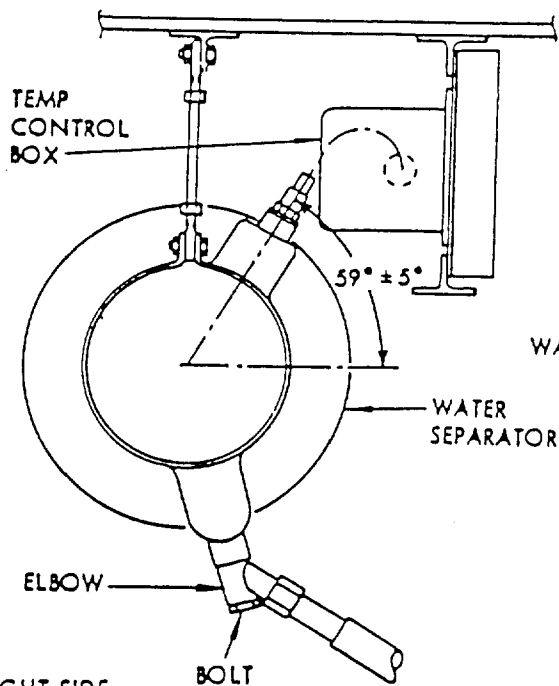
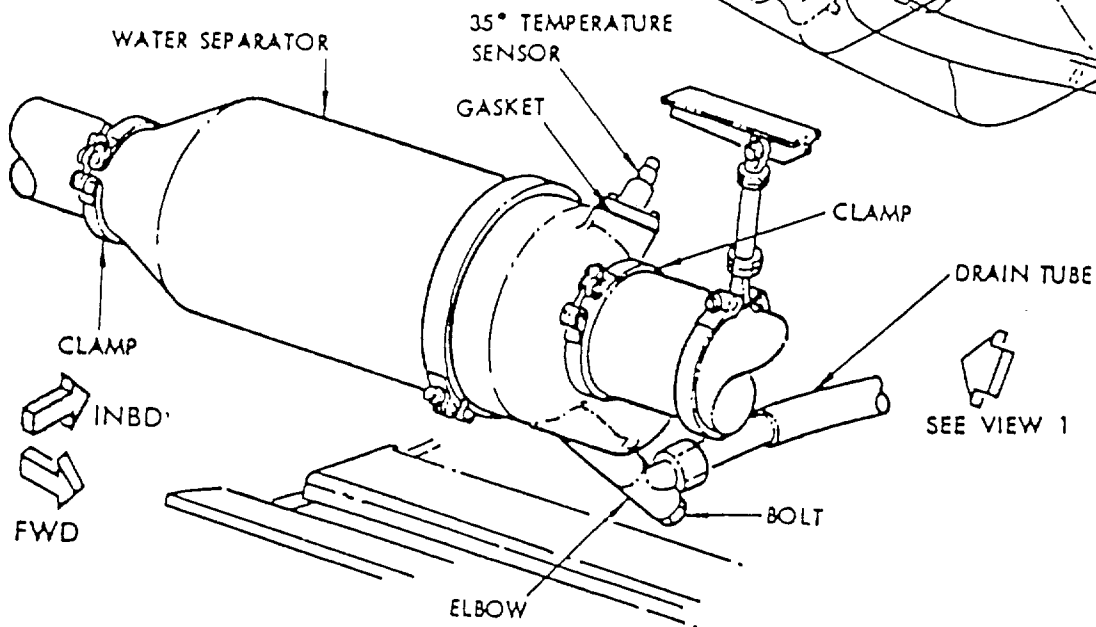
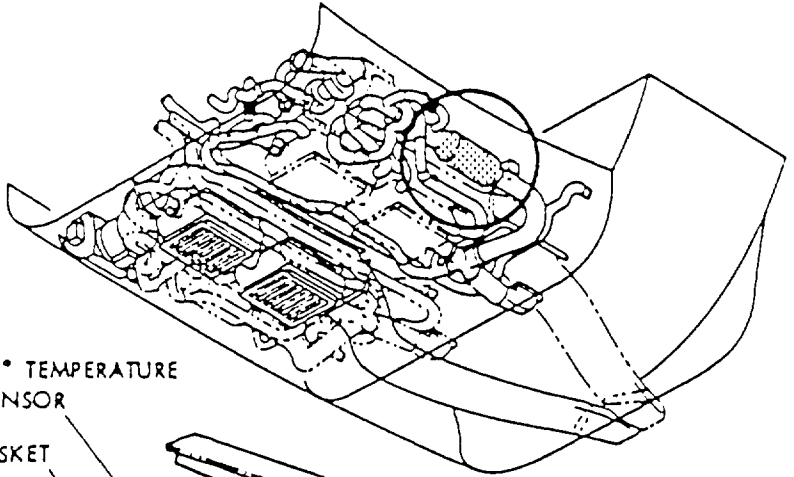
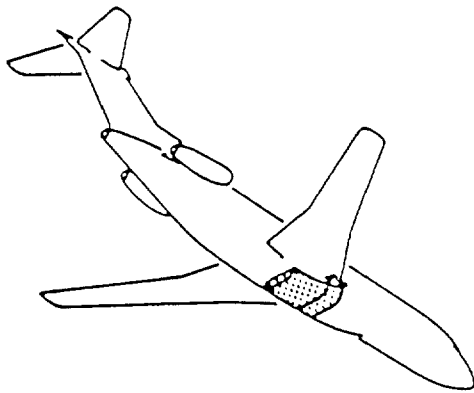
EFFECTIVITY

727-200 Series

1. Remove Water Separator (Fig. 401)
 - A. Lower A/C access panel 3349 left, 3449 right.
 - B. Open applicable WATER SEPARATOR 35°F CONTROL circuit breaker (P6).
 - C. Remove 35°F temperature sensor electrical connector.
 - D. Unscrew 35°F temperature sensor from mounting pad and retain for installation on new water separator.
 - E. Disconnect drain tube by removing bolt from elbow.
 - F. Support water separator and remove duct clamps.
 - G. Remove water separator.
2. Install Water Separator (Fig. 401)
 - A. Using new gasket, install 35°F temperature sensor.
 - B. Position water separator with arrow pointing forward and loosely clamp ducts to water separator.
 - C. Rotate water separator to the position shown in Fig. 401.
 - D. Check that drain tube and fittings are not blocked then install drain tube elbow on water separator with gasket, O-ring, and bolt. Connect drain tube to elbow if disconnected.
 - E. Tighten duct clamps.
 - F. Provide electrical power.
 - G. Close applicable WATER SEPARATOR 35°F CONTROL circuit breaker.
 - H. Check that 35-degree control valve is open.
 - I. Open 35°F control circuit breaker.
 - J. Connect electrical connector to 35°F temperature sensor and close WATER SEPARATOR 35°F CONTROL circuit breaker.
 - K. Pressurize pneumatic system (Ref Chapter 36).
 - L. Check that both A/C PACK switches are at OFF.
 - M. Move applicable temperature selector to OFF.
 - N. Check that 35-degree control valve is fully closed.
 - O. Move applicable A/C PACK switch to ON (OPEN) and check that 35-degree control valve modulates.
 - P. Check for leakage at duct to water separator joints. Diffused leakage allowed, jet blasts are not.
 - Q. Move A/C PACK switch to OFF.
 - R. Remove pneumatic pressure if no longer required.
 - S. Remove electrical power if no longer required.
 - T. Close A/C access panel.

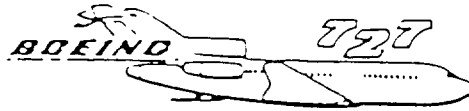


MAINTENANCE MANUAL



VIEW 1

Water Separator Installation
Figure 401



MAINTENANCE MANUAL

WATER SEPARATOR COALESCER (BAG) - CLEANING

EFFECTIVITY

727-200 Series

1. General

- A. Water separator coalescers (bags) may be cleaned for re-use if dirtiness is only cause for removal from the water separator.
- B. Two cleaning steps are provided. The first step need not be used unless the removed bag is contaminated with oil or grease.

2. Equipment and Materials

- A. Any regular fabric detergent and a washing machine
- B. Dry cleaning solvent - Stoddard Solvent, or equivalent

NOTE: The dry cleaning solvent is for use only when the bag is oily or greasy.

3. Clean Water Separator Bag

- A. Remove separator bag from water separator. Refer to Water Separator Coalescer (Bag) - Removal/Installation.
- B. Visually examine bag for oil or grease contamination. If bag appears oily or greasy proceed to step 3.C.(1); if no appearance of oil or grease proceed to step 3.C.(2).
- C. Wash separator bag.
 - (1) Immerse bag in cleaning solvent and gently rub greasy spots, then remove from solvent.
 - (2) Place bag in washer loaded with water and fabric detergent and wash for one normal cycle.
 - (3) Check that no dry cleaning solvent odor exists. If objectionable odor exists wash for another cycle.
- D. Install water separator bag. Refer to Water Separator Coalescer (Bag) - Removal/Installation.



MAINTENANCE MANUAL

WATER SEPARATOR COALESCER (BAG) - REMOVAL/INSTALLATION

EFFECTIVITY

727-200 Series

1. General

A. The water separator coalescer (bag) is positioned around bag support and secured at each end by a bead chain assembly and two springs (Fig. 401).

2. Equipment and Materials

A. Grease - Dow Corning High Vacuum, -40 to 400°F, or equivalent

3. Remove Water Separator Bag

A. Remove water separator (Ref 21-55-41).

B. Remove clamp holding water separator shell assembly to collector chamber (Fig. 401).

C. Remove collector chamber from shell assembly.

D. Remove bag support and bag from shell assembly.

E. Remove spring-loaded chain retaining ring from aft end of bag.

F. Slide bag from bag support.

4. Prepare Bag for Installation

A. If bag is new, retaining spring-chain may not be installed through hem at large diameter end of bag. On bags without spring-chain installed, a string is provided for installation of spring-chain. Tie one end of chain to string and pull chain through hem.

B. Attach ends of chain together with spring and remove string.

5. Install Water Separator Bag

A. Check that louvers of bag support are clean, then slide new bag over support and install retaining ring.

NOTE: If bag has napped side, install with napped side out.

B. Visually check both O-ring gaskets for damage and indication of permanent set. Replace gaskets as necessary.

C. Check inlet shell assembly and collector chamber for cleanliness. Remove any material which may plug drain.

D. Locate O-ring gasket in shell assembly groove per View 1, Fig. 401.

E. Install bag assembly into shell.

F. Install O-ring gasket in collector chamber groove.

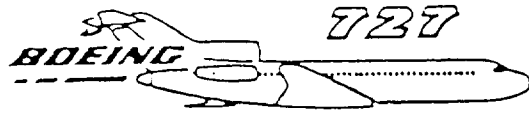
NOTE: It may be necessary to lightly grease O-ring gasket to keep gasket in groove during installation. Wipe off excess grease.

G. Place collector chamber on shell assembly.

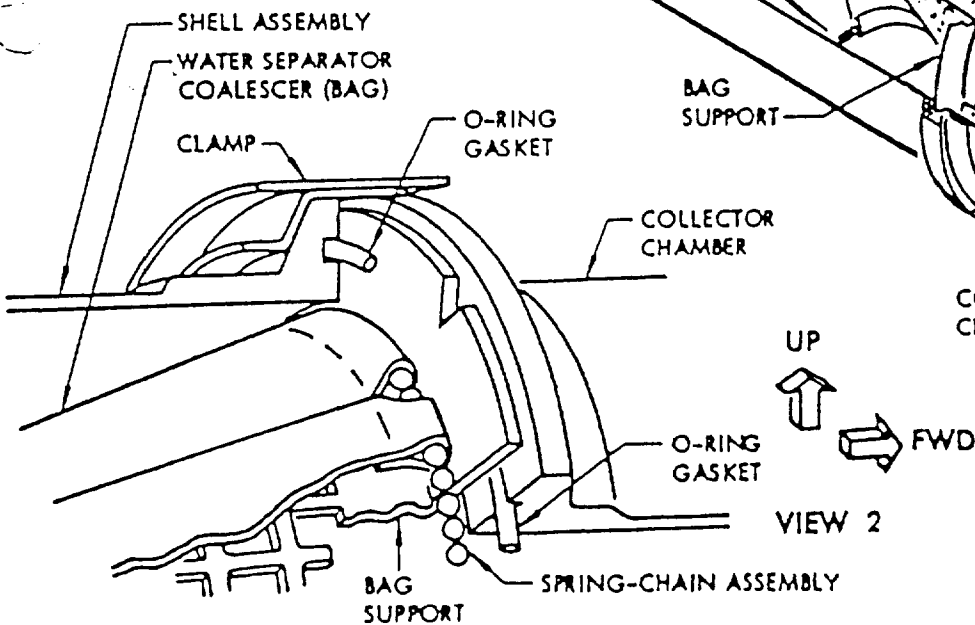
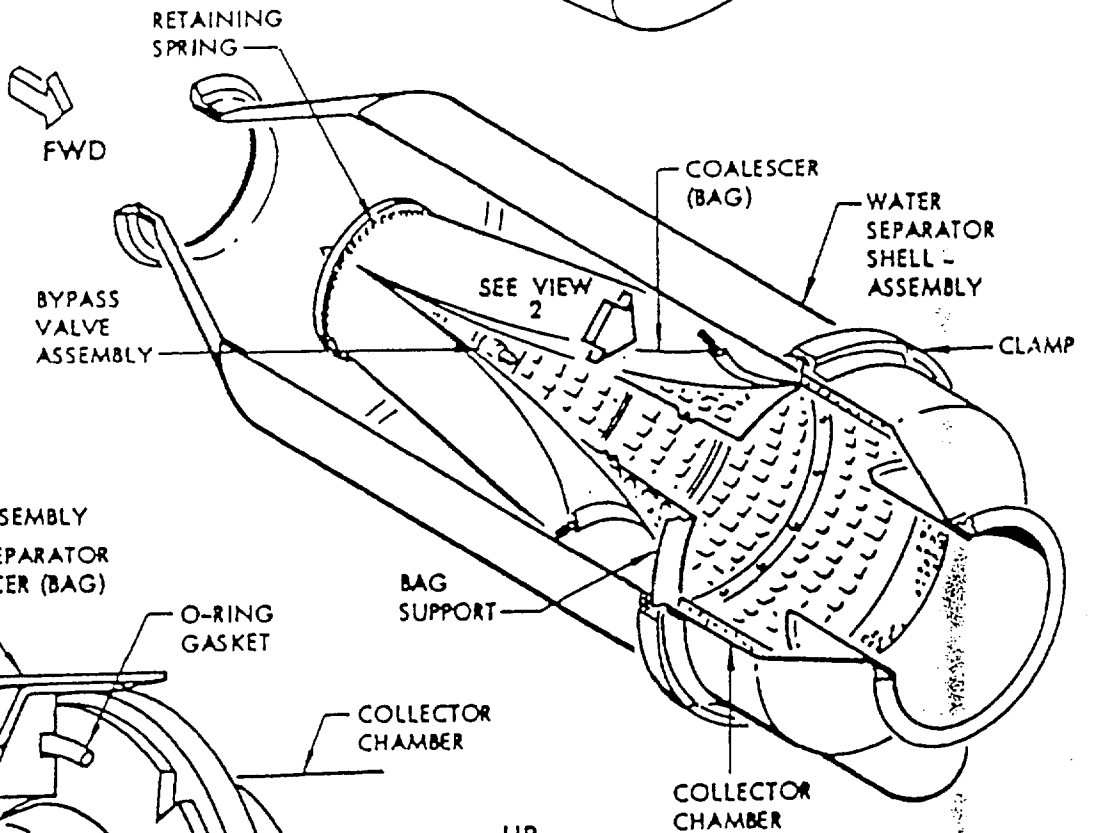
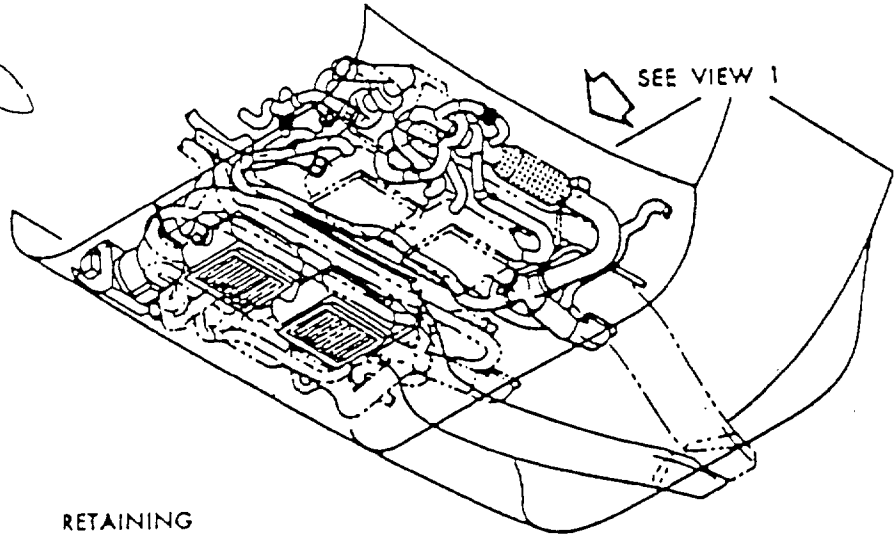
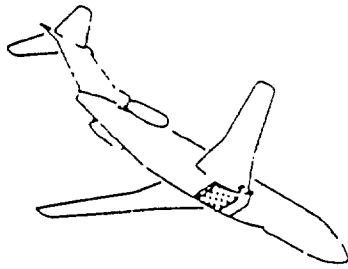
NOTE: Be careful not to disturb O-ring gasket and keep bag support centered as much as possible in shell.

H. Install clamp holding shell to collector assembly.

I. Install water separator (Ref 21-55-41).

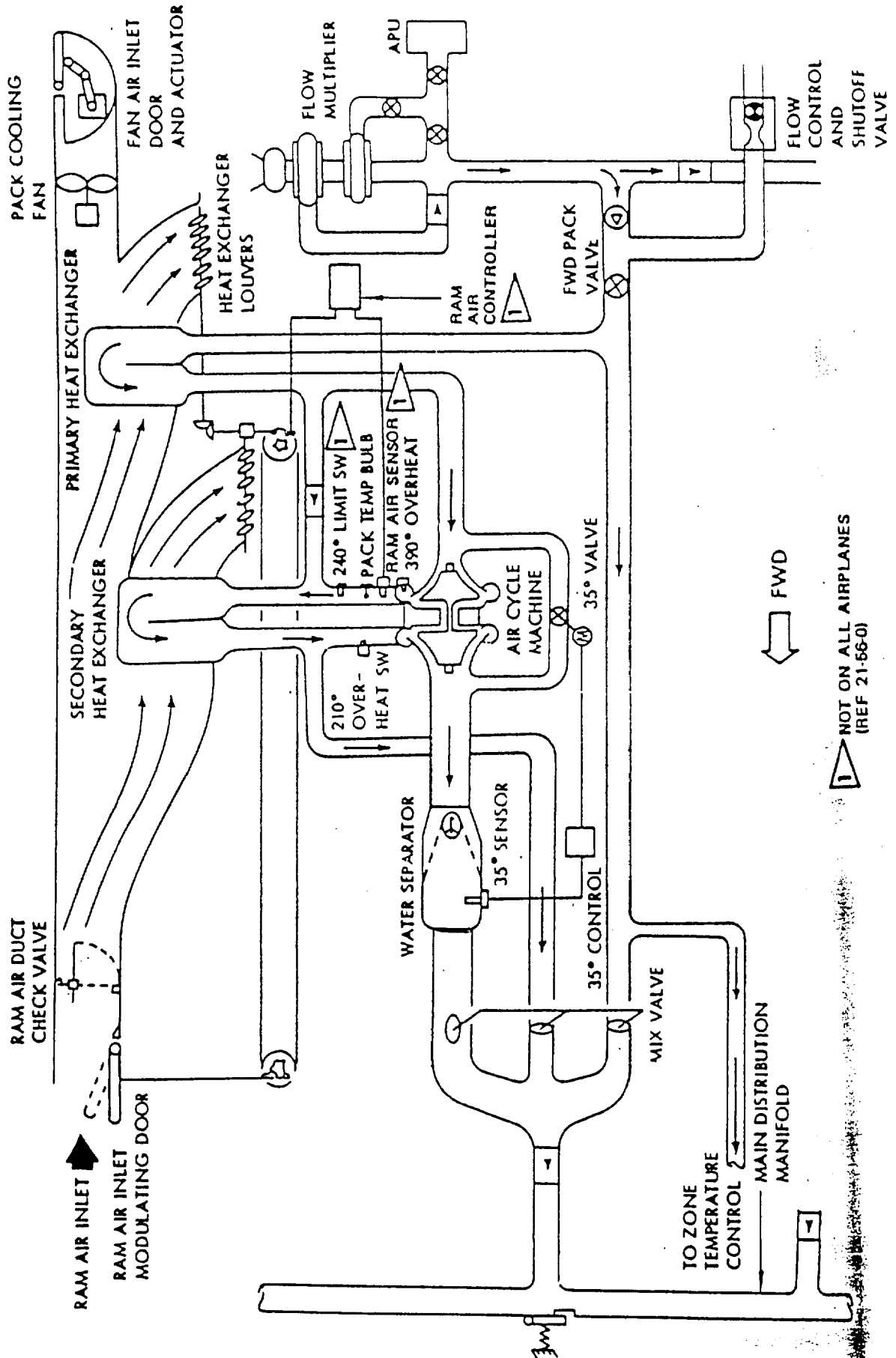


MAINTENANCE MANUAL

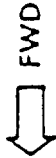


VIEW 1

Water Separator Coalescer Installation
 Figure 401

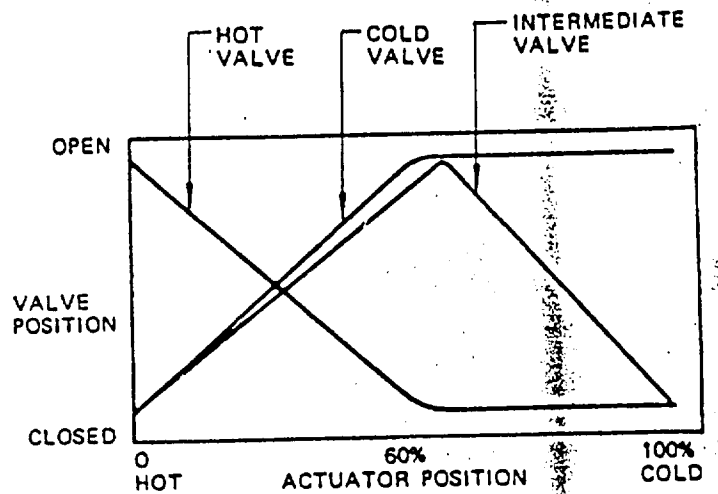
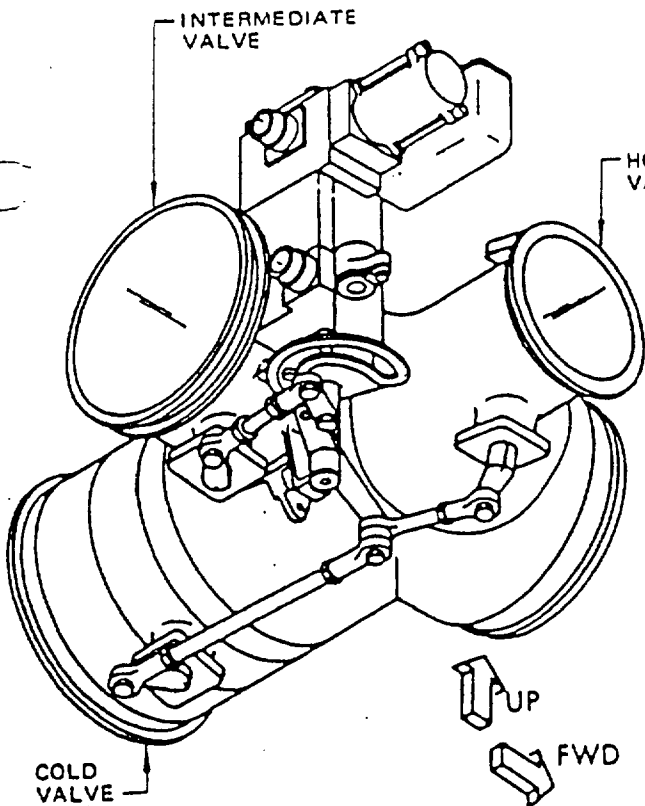
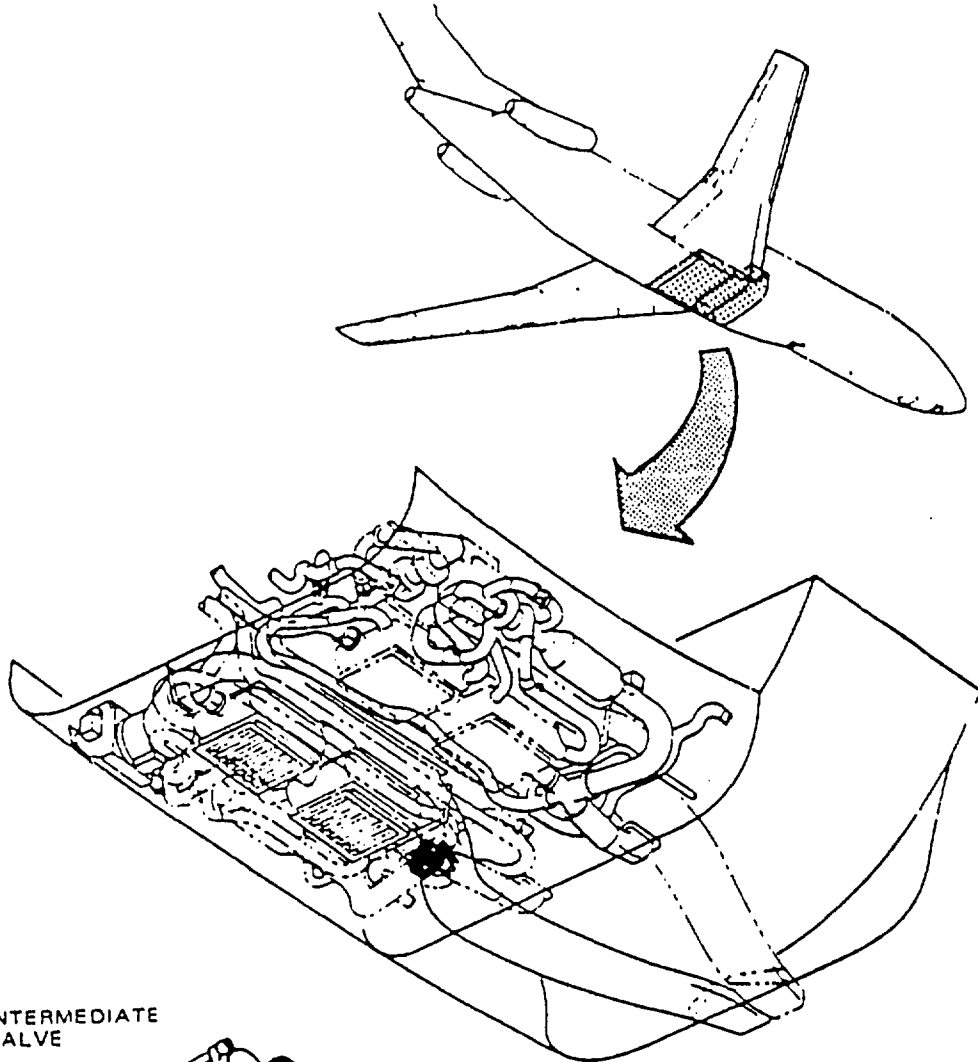


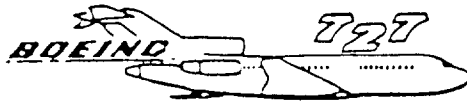
1 NOT ON ALL AIRPLANES
(REF 21-56-0)



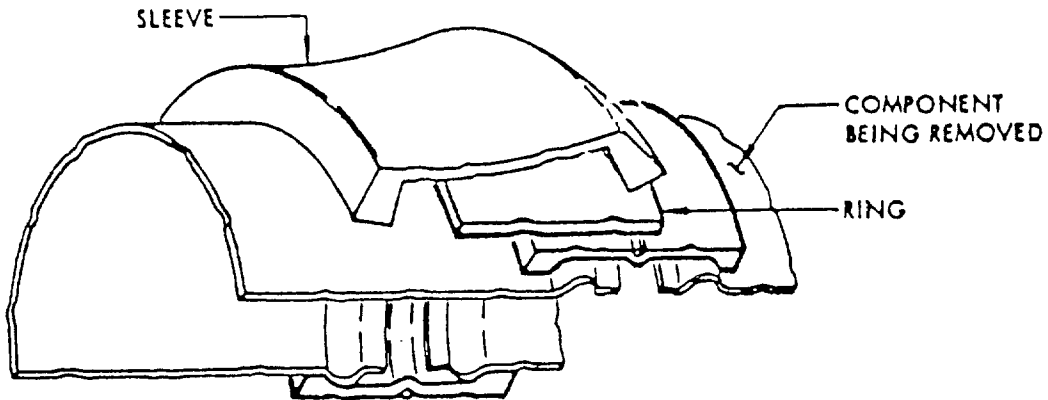


MAINTENANCE MANUAL

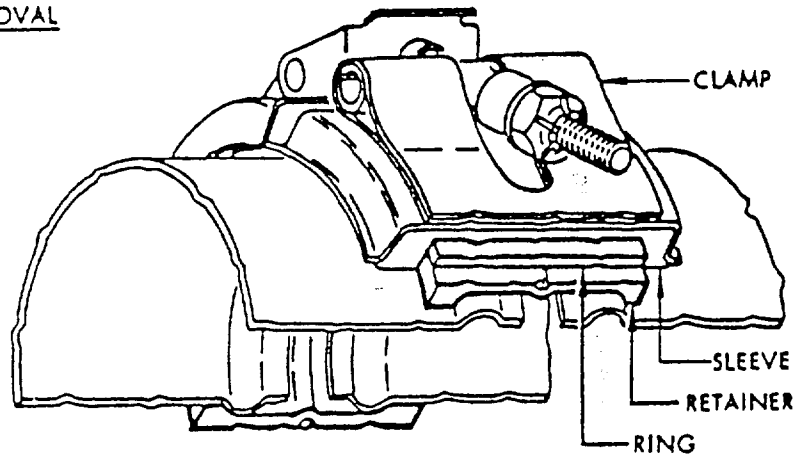




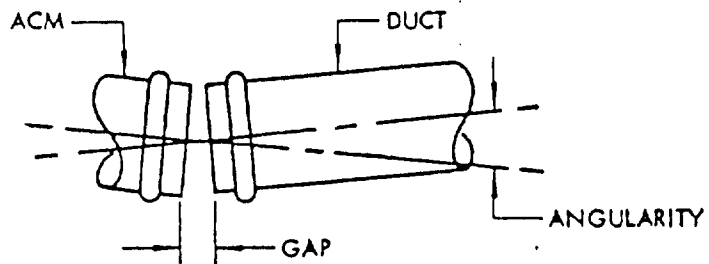
MAINTENANCE MANUAL



RING AND SLEEVE REMOVAL
DETAIL A

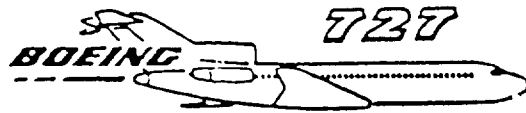


ACM FLEXIBLE COUPLING ASSEMBLED
(TYPICAL 4 PLACES)
DETAIL B



CLAMP	GAP		ANGULARITY MAXIMUM	OFFSET
	MAX	MIN		
ACM COUPLING 3 IN. OD OR LESS	0.18	0.03	3°	NOT ALLOWED
ACM COUPLING OVER 3 IN. OD	0.18	0.03	2°	

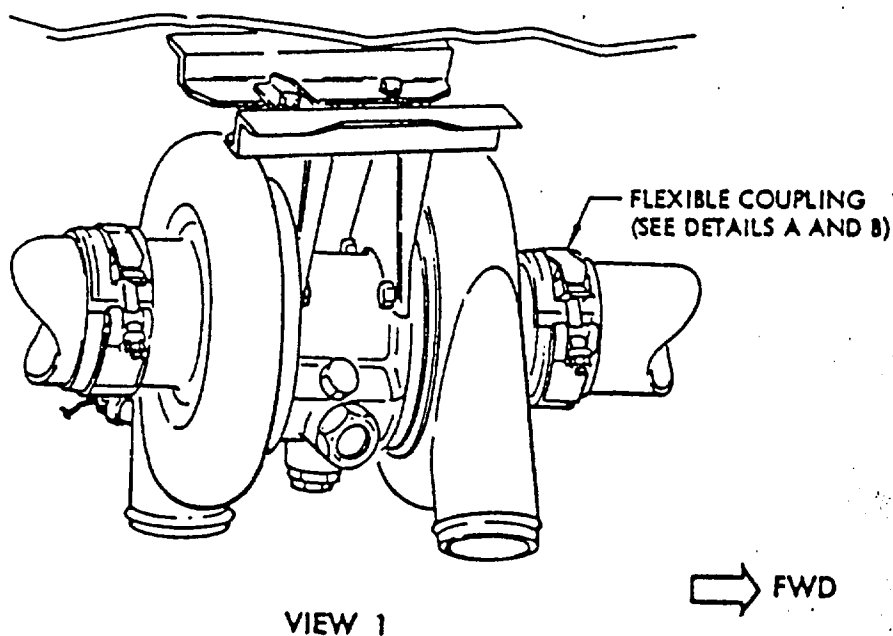
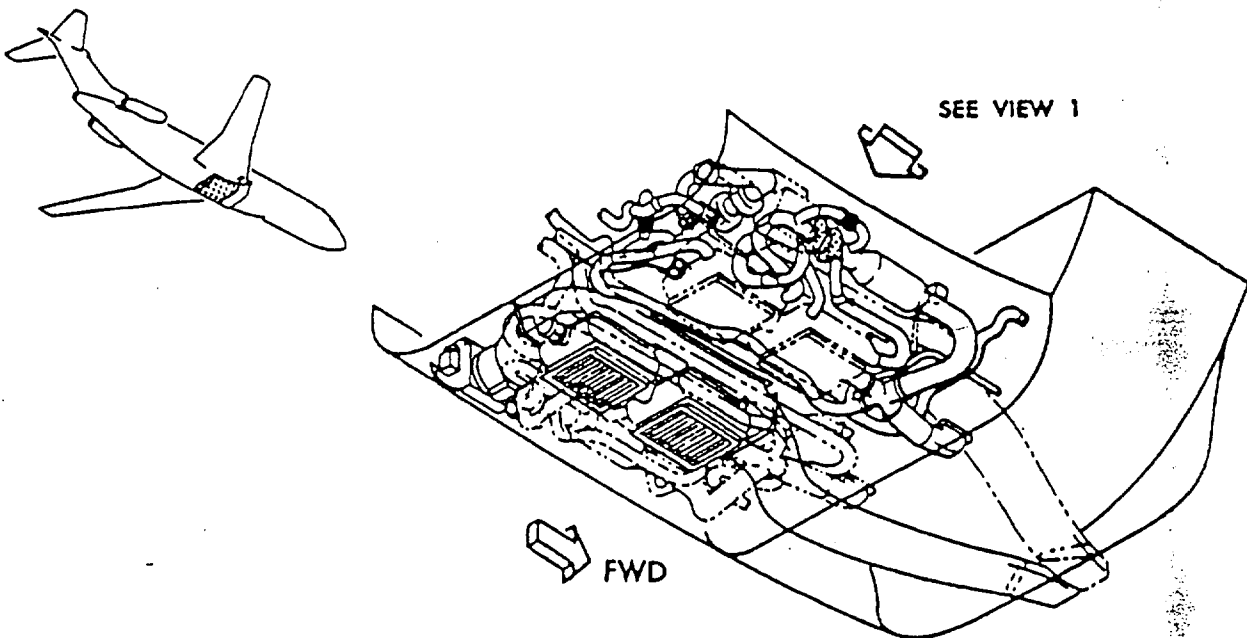
FLEXIBLE COUPLING TOLERANCE CHART



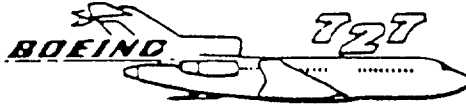
MAINTENANCE MANUAL

4. Install Flexible Coupling Assembly

- A. Align duct per tolerances in figure 401.
- B. Install retainer.
- C. Slide sleeve and ring over retainer.
- D. Position sleeve to encircle both ring and retainer.
- E. Install clamp and tighten nut to 90 to 95 pound-inches.



Flexible Coupling Assembly
Figure 401 (Sheet 1)



MAINTENANCE MANUAL

FLEXIBLE COUPLING ASSEMBLY - REMOVAL/INSTALLATION

EFFECTIVITY

727-200 Series

1. General

- A. Flexible coupling assemblies, which connect the four ducts to the ACM, contain four different parts. (See detail B, figure 401.) Joining the ducts to the ACM may be difficult unless the proper method is used for assembling the coupling. This procedure describes the suggested method for disassembly or assembly of the couplings.

2. Remove Flexible Coupling Assembly

- A. Remove clamp. (See detail B, figure 401.)
- B. Raise edge of sleeve adjacent to component being removed and push sleeve over until its edge rides on outer surface of ring. (See detail A, figure 401.)
- C. Slide sleeve and ring on component not being removed until retainer is revealed.
- D. Remove retainer.

3. Prepare to Install Flexible Coupling Assembly

NOTE: This preparation is applicable only when a new coupling or sleeve is being installed.

- A. Insert ring into sleeve at right angle, then rotate ring into alignment with sleeve. Do not insert ring completely into sleeve but keep one edge of sleeve riding on outside surface of ring.
- B. With exposed edge of ring toward joint, slide ring and sleeve onto duct until duct bead is exposed.