



PRO-TECH ADVISORS INC.  
AVIATION CONSULTANTS

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**PHYSICAL SURVEY / DOCUMENTATION  
REVIEW**

AMERICAN AIRLINES  
B727-223 ADV  
REG. N859AA S/N 21086

**PEGASUS AVIATION, INC.**

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Date: October 3, 2001  
Project No.: PGS.01.2084



**EXECUTIVE SUMMARY  
AMERICAN AIRLINES  
B727-223 ADV  
REG. N859AA S/N 21086**

The physical inspection of this aircraft was completed by **Pro-Tech Advisors, Inc.** at the specific request of **Pegasus Aviation, Inc.** Our physical inspection was conducted on September 28, 2001 at the Avtel maintenance facilities in Mojave, California. At the time of our inspection, the aircraft was undergoing a series of maintenance tasks to ready the aircraft for long-term storage. Some of these tasks included the removal of American Airlines' logos, the removal of the airfone system, and the removal of all cabin seat covers. The No. 1 engine was also removed at the time of our inspection.

This Boeing 727-223 aircraft, line number 1248, was first flown on February 15, 1977 and delivered to American Airlines on March 7, 1977. The aircraft has remained in operation with American Airlines since initial delivery.

The aircraft Federal Aviation Administration Certificate of Airworthiness and Certificate of Registration have been removed from the aircraft.

The inspection performed included a detailed visual walk-around of both the interior and exterior of the aircraft. The overall condition of the aircraft is average based on age (24.5 years), total airframe hours (68,147 as of August 31, 2001), total airframe cycles (42,313 as of August 31, 2001), and current maintenance status. The aircraft was rated on a five (5) point scale ranging from poor, fair, average, good, to excellent. The rating is based on comparison with other aircraft having similar age, total aircraft time, and total aircraft cycles.

## EXECUTIVE SUMMARY

*continued*

The purpose of this inspection is to verify the general condition, configuration, and status of the aircraft in an effort to identify any condition of non-compliance, non-standard configuration, significant defects, corrosion, damage, abnormal deterioration, and significant or substandard repairs that would detract from the aircraft's overall value.

The aircraft is equipped with the standard Boeing 727-200 series flight instrumentation, navigation, communications, and auto flight control systems. In addition to the standard equipment, the aircraft is equipped with a Bendix RDR-1F weather radar, a Honeywell Enhanced TPA-81A Alert and Collision Avoidance System (ACAS II), a Bendix / King TRA-67A ATC mode "S" transponder, a Sundstrand Mark VII Ground Proximity Warning System (GPWS) which incorporates windshear detection functions, a single Trimble HT9100 Global Positioning System (GPS), and a Lear Siegler Performance Monitoring System (PMS). The aircraft is also equipped with a Smith Industries Digital Fuel Quantity Indicating System, which is displayed in pounds.

The installed ACAS II system incorporates Change 7.0, which is a current European requirement. Honeywell's new system is enhanced because the TCAS and Mode S transponder contain not only Change 7.0 improvements but additional improved features. The Enhanced TPA-81A processor contains the functionality and growth provisions necessary to meet all existing and anticipated user requirements for the next ten years.

American has reported that the installed flight data recorder is currently recording 19 parameters, meeting current FAR Part 121 requirements.

At the time of our inspection, the following avionics black boxes were removed:

- ACARS Optional Auxiliary Terminal
- ADF, No. 1
- GFMS, No. 2
- Auto-Throttle Computer

## EXECUTIVE SUMMARY

*continued*

The main cabin is equipped to accommodate a total of one hundred thirty-eight (138) passengers in a dual class configuration. The first class compartment accommodates twelve (12) passengers and the economy class compartment accommodates one hundred twenty-six (126) passengers. At the time of our inspection, the airfone system was in the process of being removed, which includes the removal of the phones and associated wiring and switches, and installation of blanking plates. The first and economy class seat covers were also removed.

The main cabin is not equipped with a visual entertainment system.

The overall condition of the galleys and adjacent areas is average. The main cabin is equipped with four (4) galley units arranged in two (2) complexes. The forward right galley complex consists of an aft facing G-1 unit; a forward facing windscreen is located aft of the R-1 door. The aft galley complex consists of an aft facing G-3 unit and a forward facing G-4 unit, which are located forward and aft of the aft left service door, as well as a side facing G-4A unit which is located just aft of the G-4 unit.

The overall condition of the flight attendant stations is average. This aircraft is equipped to accommodate a total of five (5) flight attendants at three (3) locations. One (1) aft facing double occupancy flight attendant seat is located just forward of the L-1 door, one (1) forward facing single occupancy seat is located on the center aisle wall of the G-3 galley unit, and one (1) forward facing double occupancy seat is located on the aft ventral door.

The overall condition of the lavatories is average to good. The aircraft is equipped with three (3) lavatories; one (1) is located in the forward right section of the main cabin and two (2) are located in the aft left and right sections of the cabin.

The forward, mid, and aft fuselage areas are structurally sound and in average condition overall, both structurally and cosmetically.

## EXECUTIVE SUMMARY

*continued*

A detailed inspection was accomplished on external repairs to determine quality of workmanship; however, documentation and conformity to the manufacturer's structural repair requirements, or other approved data, should be verified for each repair. Photographs of typical repairs and repairs that may be considered significant can be found in the Photographs section of this report under Repairs. Please refer to this section of the report for additional details.

The fuselage paint is in average condition. The aircraft is painted in American Airlines' livery, which consists of a polished fuselage with three (3) painted stripes running from nose to tail. A blue stripe is painted at the window belt, with a white stripe and red stripe painted below it. At the time of our inspection, AvTel Repair Station maintenance personnel were removing all of American Airlines' logos and re-painting the red stripe blue.

The cargo compartments are equipped with a smoke detection and fire extinguishing system as is required per current Federal Aviation Regulations (FARs).

The overall structural and cosmetic condition of the nose and main landing gear is average. All three (3) landing gear are clean. The gear are being prepared for long-term storage.

The aircraft is in compliance with FAR Part 36 Stage III noise requirements.

A general documentation review was accomplished by **Pro-Tech Advisors, Inc.** Our documentation review consisted of the review of limited information in the form of computerized data and summaries provided by American Airlines. All records reviewed appear to be accurate, complete, and in compliance with the requirements of FAR Part 121. No discrepancies were noted. It should be noted that our documentation review did not include detailed research to verify accuracy of the supplied information and component life limited traceability was not established or verified.

## EXECUTIVE SUMMARY

*continued*

The aircraft is being maintained on American Airlines' maintenance program which consists of "A" checks at 65 hour intervals; "B" checks at 475 hour intervals; "C" checks at 3,000 hour intervals; and Heavy "C" checks at 14,000 hour intervals.

The last "C" check was accomplished at TAT: 65,971. The last "HC" check was accomplished at TAT: 55,805.

Please direct any questions or comments regarding this report to our corporate office.

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Ariel Rodriguez  
**Pro-Tech Advisors, Inc.**



**PHYSICAL SURVEY REPORT  
AMERICAN AIRLINES  
B727-223 ADV  
REG. N859AA S/N 21086**

**1.0 INTRODUCTION**

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## 1.0 INTRODUCTION

*continued*

The purpose of this inspection is to verify the general condition, configuration, and status of the aircraft in an effort to identify any condition of non-compliance, non-standard configuration, significant defects, corrosion, damage, abnormal deterioration, and significant or substandard repairs that would detract from the aircraft's overall value.

The following report includes a detailed narrative of the aircraft condition by section. In addition, photographs of specific areas and sections of the aircraft are included to provide the reader with a visual perspective.

This report also includes specific information regarding the aircraft specifications and summarized data obtained during the documentation review. The following additional information is included:

- Executive Summary
- Aircraft Specifications
- Aircraft Condition Checklist
- Avionics Inventory
- B727-200 Series Detailed Technical Specifications
- JT8D Series Engine Detailed Technical Specifications
- Interior Configuration Diagram
- Maintenance Program Description
- Hard Time Component Listing
- Repetitive / Open Airframe Airworthiness Directives Summary
- Aging Airplane Structural Modification Program
- Aging Airplane Corrosion Prevention and Control Program
- Engine Data
- Photographs

## 2.0 COCKPIT

The cockpit is inspected for overall condition and irregularities. Cockpit components such as instrument panels, instruments, switches, and controls are inspected for excessive wear, damage, non-standard configuration, and conformity to current regulations. In addition, interior panels and trim are inspected for deterioration, damage, and cleanliness. Cockpit seats, seat floor tracks, and floor panels are inspected for excessive wear, corrosion, and damage. Cockpit windows are visually inspected for obvious defects and delamination. Emergency equipment and furnishings are checked for compliance with current Federal Aviation Regulations (FARs).

The overall structural and cosmetic condition of the cockpit is average. No significant structural defects or damage was noted.

The cockpit seating accommodates the captain, co-pilot, flight engineer, and two (2) observers. The cockpit seats are in average condition. These seats are covered with a gray fabric; this fabric is fairly clean with only normal wear and tear noted. The cockpit seat movement mechanisms were functionally checked for smooth operation and found in normal working order, with some play noted.

The captain's and co-pilot's upper and lower instrument panels were examined and found in average condition. The center instrument panel and center pedestal / throttle quadrant show normal signs of wear. The flight engineer's upper and lower instrument panels are clean and in average condition, with normal wear and tear noted. The overhead and sidewall panels are in average condition with no excessive wear or tear noted.

The cockpit floor is free of significant repairs, with no soft spots or other damage noted. No evidence of fluid spillage residue or debris buildup was noted on the cockpit floor.

The cockpit fixed and sliding windows are in average condition. No damage, delamination, or evidence of overheating was noted on the cockpit windows, with the exception of minor crazing on the left and right fixed side windows. These windows are located aft of the sliding windows.

## 2.0 COCKPIT

*continued*

The aircraft is equipped with the standard Boeing 727-200 series flight instrumentation, navigation, communications, and auto flight control systems. In addition to the standard equipment, the aircraft is equipped with a Bendix RDR-1F weather radar, a Honeywell Enhanced TPA-81A Alert and Collision Avoidance System (ACAS II), a Bendix / King TRA-67A ATC mode "S" transponder, a Sundstrand Mark VII Ground Proximity Warning System (GPWS) which incorporates windshear detection functions, a single Trimble HT9100 Global Positioning System (GPS), and a Lear Siegler Performance Monitoring System (PMS). The aircraft is also equipped with a Smith Industries Digital Fuel Quantity Indicating System, which is displayed in pounds.

The installed ACAS II system incorporates Change 7.0, which is a current European requirement. Honeywell's new system is enhanced because the TCAS and Mode S transponder contain not only Change 7.0 improvements but additional improved features. The Enhanced TPA-81A processor contains the functionality and growth provisions necessary to meet all existing and anticipated user requirements for the next ten years.

American has reported that the installed flight data recorder is currently recording 19 parameters, meeting current FAR Part 121 requirements.

The installed avionics equipment appears to be in compliance with current FAR Part 121 regulations. The following avionics boxes were removed at the time of our inspection:

- ACARS Optional Auxiliary Terminal
- ADF, No. 1
- GFMS, No. 2
- Auto-Throttle Computer

All cockpit emergency equipment and furnishings appear to be intact, complete, and in compliance with current FARs. All cockpit placards, instrument panels, and circuit breaker panels are legible and display only minor paint deterioration associated with normal wear.

*(Photos 1 thru 11)*

### 3.0 MAIN CABIN

The main cabin and interior components are inspected for general condition, cleanliness, abnormal deterioration, configuration, significant defects, and substandard or excessive repairs. The inspection includes the general condition of interior items such as ceiling and sidewall panels, passenger service units (PSUs), overhead storage compartments, door covers, floor panels, interior trim, and windows. In addition, interior components such as passenger seats, flight attendant seats, dividers, closets, galleys, and lavatories are inspected for general condition and configuration. All emergency equipment is inspected for configuration and conformity to current FARs.

Specific attention is given to the floor structure around cabin door thresholds, lavatories, and galleys to detect evidence of corrosion.

The main cabin is equipped to accommodate a total of one hundred thirty-eight (138) passengers in a dual class configuration. The first class compartment accommodates twelve (12) passengers and the economy class compartment accommodates one hundred twenty-six (126) passengers.

The economy class is separated from the first class by a partition which is located on both sides of the main cabin.

The first class compartment is configured with three (3) rows of double seat assemblies on both the left and right sides of the main cabin. These seats were originally manufactured in 1984 by Fairchild Burns and carry model number FBC 2020-2-57 and part numbers 86663001 (left) and 86663002 (right). The seats were modified in April, 1992 with the airfone installation and then in 1996 to comply with Service Bulletin 1353; the seats were re-identified. The current placards indicate part numbers 866631001 (left) and 866631002 (right). At the time of our inspection, the airfone system was in the process of being removed. This includes the removal of the phones and associated wiring and switches, and the installation of blanking plates.

### 3.0 MAIN CABIN

*continued*

The first class seat covers were removed at the time of our inspection. The seat cushions are in average condition with normal wear and tear noted. The condition of the primary and secondary structure of the seats, including seat frames, side panels, plastic trim, tray tables, seat belts, and associated hardware, is average. The seat assemblies were inspected and found to be manufactured to, and display compliance with, Technical Standard Order (TSO) C39b, after the modification. A spot check of the seat cushions indicate that they are fire-blocked as required per FAR 25.853c. The seat cushions are the flotation type.

The economy class compartment is configured with twenty (20) triple seat assemblies on the left side of the main cabin and twenty (20) triple seat assemblies, as well as three (3) double seat assemblies, on the right side of the cabin. These seats were manufactured by Weber in 1981 and carry part numbers 827533-401 (left) and 827533-402 (right), with specific dash numbers dependent upon installation location. The seats were modified in April, 1992 with the airfone installation and then in 1996 to comply with TSO C39b. The seats were re-identified; the current placards indicate part numbers 827533-417 (left) and 827533-418 (right). Specific dash numbers are dependent upon installation location. At the time of our inspection, the airfone system was in the process of being removed, which includes the removal of the phones and associated wiring and switches, and installation of blanking plates.

The economy class seat covers were removed at the time of our inspection. The condition of the primary and secondary structure of the seats, including seat frames, side panels, plastic trim, tray tables, seat belts, and associated hardware, is average. The seat assemblies were inspected and found to be manufactured to TSO C39a, and modified to meet TSO C39b. A spot check of the seat cushions indicate that they are fire-blocked as required per FAR 25.853c. The seat cushions are the flotation type.

The main cabin windows are in average condition with no defects, other than minor scratches and crazing, noted. No visible moisture was noted trapped between the window panes. At the time of our inspection the aircraft was being prepped for long-term storage, which includes the installation of protective coverings to all windows.

### 3.0 MAIN CABIN

*continued*

The aircraft is equipped with the large “carry all” type overhead storage compartments. These compartments are fairly clean and in average condition, with no major defects noted. The compartments are placarded for a capacity of one hundred eighty (180) pounds (82 kilograms).

The passenger service units (PSUs) are in good condition and appear serviceable, with normal wear and tear noted.

The main cabin ceiling panels were inspected and found in good condition, with no major defects noted. The sidewall panels are also in good condition.

The main cabin carpet is in average condition. At the time of our inspection, no evidence of soft flooring was noted throughout the center aisle.

A hanging garment closet is located in the forward left entry area, just aft of the L-1 door. This unit was manufactured by C & D Interiors in 1984 and carries part number 1891001-101. This unit is in average condition with no defects noted.

A forward galley storage compartment is located just aft of the hanging garment closet. This unit was manufactured by C & D Interiors in 1984 and carries part number 1871001-101. This compartment is equipped with two (2) storage shelves and a large drawer. This unit is in average condition with no defects noted.

A second hanging garment closet is located just aft of the above described unit. This unit was manufactured by C & D Interiors in 1985 and carries part number 1861001-101. This closet unit also houses a wheelchair. The unit is in average condition with no defects noted.

The emergency escape path lighting system installed in the main cabin is a floor mounted lighting system. This system extends along the entire length of the main cabin center aisle, on the right side. Appropriate colored lights are installed in the system to indicate passenger escape paths.

### 3.0 MAIN CABIN

*continued*

The aircraft is not equipped for over water operations. No life rafts or life vests are installed.

The fixed and loose equipment appears to comply with FAR Part 121 regulations. All equipment appears intact, serviceable, and complete. This equipment is properly stored at various locations throughout the main cabin.

The main cabin is not equipped with a visual entertainment system.

This aircraft is equipped with the four (4) standard sized entry and galley service doors for a Boeing 727-200 aircraft. The doors are located in the forward left and right fuselage and the aft left and right fuselage. The doors are typically referred to as L-1 / R-1 and L-2 / R-2, respectively. The L-1 door is the main passenger entry door. All main cabin doors are equipped with emergency escape slides. The aircraft is also equipped with the standard B727 aft ventral airstair door and four (4) overwing emergency exits. This aircraft is not equipped with forward airstairs.

The doors and door surround structures are in average to good condition and free of obvious defects and major repairs. The door seals and door seal strikers are in average condition. The door hinges, latches, and operating mechanisms are serviceable and appear free of defects, with only normal wear and tear noted. The overwing exits are in average condition with all required placards installed.

*(Photos 12 thru 25, 36, and 37)*

### 3.1 Galleys

The main cabin is equipped with four (4) galley units arranged in two (2) complexes. The forward right galley complex consists of an aft facing G-1 unit; a forward facing windscreen is located aft of the R-1 door. The aft galley complex consists of an aft facing G-3 unit and a forward facing G-4 unit, which are located forward and aft of the aft left service door, as well as a side facing G-4A unit which is located just aft of the G-4 unit.

The G-1 galley unit was manufactured by Weber and carries part number 832521-401. This unit is equipped with two (2) ovens, three (3) full sized service cart positions, two (2) coffee makers, one (1) waste compartment, and one (1) miscellaneous storage compartment. The G-1 galley and floor structure are in average condition with no evidence of corrosion noted.

The forward right windscreen was manufactured by Weber in April, 1985 and displays part number 832522-401. This unit is equipped with two (2) fold down tables and two (2) fold down coffee pot holders. This unit is in average condition with normal wear and tear noted.

The G-3 galley unit was manufactured by Weber and carries part number 832524-401. This unit is equipped with two (2) half sized service cart positions, two (2) coffee makers, two (2) waste compartments, and three (3) miscellaneous storage compartments. The G-3 galley and floor structure are in average condition with no evidence of corrosion noted.

The G-4 / G-4A galley was manufactured by Weber and carries part number 832525-401. The G-4 unit is equipped with four (4) full sized service cart positions, two (2) ovens, and two (2) miscellaneous storage compartments. The G-4 galley and floor structure are in average condition with no evidence of corrosion noted. This area is in need of resealing. The G-4A unit is equipped with two (2) full sized service cart positions and two (2) storage compartments with tray positions. The G-4A galley and floor structure are in average condition with no evidence of corrosion noted.

### 3.1 Galleys *continued*

The galleys and adjacent areas were checked for obvious damage, soft flooring, and evidence of floor structure corrosion. The overall condition of the galleys is average. The adjacent areas are in average condition and appear to be free of corrosion and soft flooring. The galley floors are covered with carpet. The condition of the carpet is average.

*(Photos 26 thru 29)*

### 3.2 Flight Attendant Stations

This aircraft is equipped to accommodate a total of five (5) flight attendants at three (3) locations. One (1) aft facing double occupancy flight attendant seat is located just forward of the L-1 door, one (1) forward facing single occupancy seat is located on the center aisle wall of the G-3 galley unit, and one (1) forward facing double occupancy seat is located on the aft ventral door.

The condition of the flight attendant stations is average. The stations are well maintained, showing normal wear and tear. The required emergency and loose equipment is installed, intact, and appears serviceable. The interphones and controls located at each station operate normally and appear in serviceable condition.

The forward flight attendant station consists of a dual place, aft facing seat which is installed forward of the L-1 door. This seat, when not in use, folds up in a retracted position to maintain maximum aisle width. The seat structure is sound and free of damage. The seat is covered with dark blue leather, which is in good condition. The seat lap belts, shoulder harnesses, and buckles are in good condition and operate normally. No fraying was noted to the belts.

The mid cabin flight attendant station consists of a single place, forward facing seat which is installed on the center aisle wall of the G-3 galley unit. This seat, when not in use, folds up in a retracted position to maintain maximum center aisle width. The seat structure is sound and free of damage. The seat is covered with dark blue leather, which is in good condition. The seat lap belts, shoulder harnesses, and buckles are in good condition and operate normally.

### 3.2 **Flight Attendant Stations** *continued*

The aft flight attendant station consists of a dual place, forward facing seat which is attached to the forward side of the aft ventral door. This seat, when not in use, folds up in a retracted position to allow for door opening / closing as well as maximum aisle space. The seat structure is sound and free of damage. The seat is covered with dark blue leather. The seat covers are in good condition with minimal wear and tear noted. The seat lap belts, shoulder harnesses, and buckles are in average condition and operate normally.

*(Photos 30 thru 32)*

### 3.3 **Lavatories**

The aircraft is equipped with three (3) lavatories; one (1) is located in the forward right section of the main cabin and two (2) are located in the aft left and right sections of the cabin. Each lavatory is equipped with the required placards, an electronic smoke detector system, and a trash fire extinguishing system as required per current Federal Aviation Regulations (FARs).

The overall condition of the lavatories is average to good. The lavatories and adjacent areas were checked for obvious damage, soft flooring, and evidence of floor structure corrosion. These areas are in good condition and free of defects. All interior sidewalls, ceiling panels, floor coverings, door frames, sinks, and mirrors are serviceable and in good condition. No defects were noted underneath the cabinets.

The lavatory flooring, commonly called “floor pan”, is intact and well sealed. This floor pan helps protect the under floor primary structure from leakage of corrosive fluids from inside the lavatory compartment.

*(Photos 33 thru 35)*

## 4.0 FUSELAGE

The physical inspection conducted was limited to a detailed walk-around type inspection with specific attention to structurally significant areas prone to high levels of corrosion and fatigue. These areas include the lower belly skins, longitudinal lap joints, circumferential butt splices, and external repairs.

External repairs located on the lower belly skins are generally installed to correct damage caused by internal corrosion. External repairs located around door cutouts are generally installed as preventive modifications to deter cracking and fatigue related defects. Repairs to the fuselage side panels and wing leading edges are generally installed to correct accidental damage caused by contact from ground support vehicles or incidental damage caused by the aircraft's operating environment.

A detailed inspection was given to external repairs for quality of workmanship and conformity to the manufacturer's structural repair manual requirements. Please refer to the Photographs section of this report for further details on specific repairs.

### 4.1 Forward Fuselage

The forward fuselage area includes the upper, side, and lower fuselage structure extending from the nose of the radome to the leading edge of the wings. The overall structural condition of the forward fuselage is average.

The forward belly skins appear to be free of active / latent corrosion and evidence of abnormal structural deterioration or major damage. The forward belly skins, including lap joints, production splices, and seams, are free of wrinkling, bulges, loose / missing fasteners, and other indications of significant fatigue / corrosion related damage or deterioration.

#### 4.1 Forward Fuselage *continued*

The forward fuselage sides, above the belly skin area and extending upward to the visible areas above the passenger compartment window belt line, as viewed from the ground, are in average condition and free of abnormal structural deterioration and other significant structural defects or damage. The L-1 and R-1 doors and door surround structures are free of significant damage and major repairs. The door sill plates are in average condition and appear well sealed at the sill plate to fuselage body mating surfaces.

The Electronics and Equipment (E & E) compartment was physically inspected for damage and irregularities. The installed avionics, electrical controls, control cables, and equipment are in average condition and free of obvious damage and defects. The compartment floor is dirty; however, no evidence of fluid spillage or corrosion is visible.

Repairs noted in the forward fuselage area and their approximate locations are described below.

- An external doubler repair, measuring approximately 9" x 10", is installed on the forward fuselage left side at Body Station (BS) 368.
- An external doubler repair, measuring approximately 12" x 13", is installed on the forward fuselage left side at BS 400.
- An external doubler repair, measuring approximately 9" x 7", is installed on the forward fuselage left side at BS 420.
- An external doubler repair, measuring approximately 8" x 9", is installed on the right nose section at BS 211.
- An external doubler repair, measuring approximately 10" x 17", is installed on the right nose section at BS 325.
- An external doubler / tripler repair, measuring approximately 26" x 20", is installed on the forward fuselage right side at BS 395.
- An external doubler repair, measuring approximately 15" x 8", is installed on the forward fuselage right side at BS 400.
- An external doubler repair, measuring approximately 11" x 6", is installed on the forward fuselage right side at BS 435.
- An external doubler repair, measuring approximately 10" x 11", is installed on the forward fuselage right side at BS 435.
- An external doubler repair, measuring approximately 10" x 10", is installed on the forward belly skins at BS 700.
- A flush repair, measuring approximately 4" x 5", is installed on the left nose gear door.

## 4.2 Mid Fuselage

The mid fuselage area includes the upper, side, and lower fuselage structure extending from the wing leading edge to the wing trailing edge. This section of the fuselage is in average condition with no evidence of repairs or active / latent corrosion noted.

The mid belly skins and wing-to-body fairings appear to be free of active / latent corrosion and evidence of abnormal structural deterioration, composite panel delamination, or other major damage. The mid belly skins, including lap joints, production splices, and seams, are free of wrinkling, bulges, loose / missing fasteners, and other indications of significant fatigue / corrosion related damage or deterioration.

The composite and fiberglass wing-to-body fairings and other secondary structure are in average condition with no obvious defects or damage noted. The fairings are aerodynamically clean with all fasteners installed. No delamination was noted to these panels.

The mid fuselage sides, above the wings and extending upward to the visible areas above the passenger compartment window belt line, as viewed from the ground, are in average condition and free of abnormal structural deterioration and other significant structural defects or damage.

The mid fuselage window belt line and window frames are free of major repairs and other damage. The emergency overwing exit doors and surround structures are free of significant repairs and damage. The visible areas of the upper crown skin appear to be free of major doubler repairs and evidence of abnormal structural deterioration. The fuselage lap joints, production splices, stringer and circumferential attach points, and other primary structural joints are free of major repairs, with no evidence of active or latent corrosion noted.

No repairs were noted in the mid fuselage area.

### 4.3 Aft Fuselage

The aft fuselage area includes the upper, side, and lower fuselage structure extending from the wing trailing edge to the aft portion of the empennage. The overall structural condition of the aft fuselage is average.

The aft belly skins appear to be free of active / latent corrosion and evidence of abnormal structural deterioration or major damage. The aft belly skins, including lap joints, production splices, and seams, are free of wrinkling, bulges, loose / missing fasteners, and other indications of significant fatigue / corrosion related damage or deterioration.

The aft fuselage sides, above the belly skin area and extending upward to the visible areas above the passenger compartment window belt line, as viewed from the ground, are in average condition and free of abnormal structural deterioration and other significant structural defects or damage. The L-2 and R-2 doors and door surround structures are free of significant damage and major repairs. The door sill plates are in average condition and appear well sealed at the sill plate to fuselage body mating surfaces.

The aft fuselage window belt line and window frames are free of major repairs and other damage. The visible areas of the upper crown skin appear to be free of major doubler repairs and evidence of abnormal structural deterioration. The fuselage lap joints, production splices, stringer and circumferential attach points, and other primary structural joints are relatively free of major repairs, with no evidence of active or latent corrosion noted.

The following repairs were noted in the aft fuselage area. These repairs are considered typical, are of good quality, and appear to conform to the manufacturer's repair manual practices / procedures and approved repair criteria.

- An external doubler repair, measuring approximately 12" x 30", is installed on the aft fuselage left side at BS 1020.
- An external doubler repair, measuring approximately 10" x 10", is installed on the aft fuselage left side at BS 1040.

### 4.3 Aft Fuselage *continued*

- An external doubler repair, measuring approximately 32" x 13", is installed on the aft fuselage left side at BS 1055.
- An external doubler repair, measuring approximately 9" x 9", is installed on the aft fuselage left side at BS 1085.
- An external doubler repair, measuring approximately 12" x 8", is installed on the aft fuselage left side at BS 1129.
- A repair, measuring approximately 4" x 6", is installed on the aft fuselage left side, forward of the No. 2 engine left cowl.
- An external doubler repair, measuring approximately 21" x 15", is installed on the aft fuselage right side at BS 1083.
- An external doubler repair, measuring approximately 10" x 6", is installed on the aft fuselage right side at BS 1092.
- An external doubler repair, measuring approximately 6" x 12", is installed on the aft fuselage right side at BS 1100.
- An external doubler repair, measuring approximately 9" x 8", is installed on the aft belly skins at BS 994.
- An external doubler repair, measuring approximately 28" x 10", is installed on the aft belly skins at BS 1010.
- An external doubler repair, measuring approximately 22" x 11", is installed on the aft belly skins at BS 1025.
- An external doubler repair, measuring approximately 11" x 7", is installed on the aft belly skins at BS 1048.
- An external doubler repair, measuring approximately 6" x 6", is installed on the aft fuselage right side, aft of the airstair.
- Two (2) small doublers are installed at the forward right corner of the aft airstair cutout.

### 4.4 Fuselage Paint

The aircraft was originally painted in American Airlines' livery, which consists of a polished fuselage with three (3) painted stripes running from nose to tail. A blue stripe is painted at the window belt; a white stripe and red stripe are painted below the blue stripe. The American Airlines logo is painted on both sides of the vertical stabilizer.

At the time of our inspection, AvTel Repair Station maintenance personnel were removing all of American Airlines' logos and re-painting the red stripe blue.

The fuselage paint is in average condition. The empennage is polished.

#### 4.4 **Fuselage Paint** *continued*

The upper and lower surfaces of the wings and horizontal stabilizers are painted light gray. Minor erosion of the paint was noted on the leading edge devices.

*(Photos 38 thru 58)*

### 5.0 CARGO COMPARTMENTS

Cargo compartments are inspected for general condition of flooring, sidewall liners, and ceiling panels. Cargo compartments are checked, when possible, for proper lighting, weight placards, and security and condition of the compartment floor and sidewall liners. Visible door structures, frames, hinges, and door operating and lock mechanisms are inspected for condition, defects, and corrosion.

The overall condition of the cargo compartments is average. The aircraft is equipped with two (2) cargo compartments; one (1) in the forward lower fuselage and one (1) in the aft lower fuselage. Each compartment is accessed through an outward and upward opening cargo door located approximately in the center of each compartment, on the right side of the aircraft.

The forward cargo compartment is generally referred to as the C-1 compartment. This compartment is in average to good condition. The fire resistant liner shows normal wear and tear. Seam taping is in place and compartment placards and weight limitations are applied. The floor appears structurally sound. Baggage nets were installed in the compartment at the time of our inspection. The nets appear in good condition.

The C-1 door, door surround structure, door seals, and door operating mechanisms are serviceable and free of corrosion and obvious damage. The cargo door stainless steel sill plates and adjacent fuselage structure display minor scratches and dents, which have occurred from ground handling and baggage loading / off loading. The door was operated and found to operate smoothly, without binding or other mechanical interference. The C-1 door appears properly rigged.

## 5.0 CARGO COMPARTMENTS

*continued*

The aft cargo compartment is generally referred to as the C-2 compartment. This compartment is in average to good condition. The fire resistant liner shows normal wear and tear. Seam taping is in place and compartment placards and weight limitations are applied. The floor appears structurally sound and free of repairs. Baggage nets were located in the compartment at the time of our inspection.

The C-2 door, door surround structure, door seals, and door operating mechanisms are serviceable and free of corrosion and obvious damage. A puncture from impact damage by ground handling equipment during baggage loading / off loading was noted on the cargo door stainless steel sill plates. The door was operated and found to operate smoothly, without binding or other mechanical interference. The C-2 door appears properly rigged.

The lighting in both compartments is serviceable. All light bulbs and fixtures are protected to prevent them from coming into contact with cargo or baggage.

The cargo compartments are equipped with a smoke detection and fire extinguishing system as is required per current Federal Aviation Regulations (FARs).

*(Photos 59 thru 63)*

## 6.0 LANDING GEAR / WHEEL WELLS

Landing gear assemblies and wheel wells are inspected for general condition, obvious damage, excessive wear, corrosion, significant or substandard repairs, and level of preventive maintenance. A general inspection was performed on doors, linkages, electrical components, electrical wiring, and hydraulic plumbing, with specific attention given to structurally significant areas and components. The wheel wells and landing gear support structure are inspected for corrosion, cracks, damage, and loose or missing fasteners. Landing gear components, such as shock struts, drag and side struts, torque links, and trunnions, are inspected for excessive wear, corrosion, and moving or migrating parts. Wheels, brakes, and tires are inspected for general condition and serviceability.

## 6.0 LANDING GEAR / WHEEL WELLS

*continued*

The nose and main landing gear shock struts and visible portions of the piston assemblies are free of corrosion and protected with paint or chrome plating as required. These sub-assemblies are free of obvious damage, repairs, and abnormal wear and tear. The landing gear drag links, swivels, actuators, and other secondary structural components are in average condition and free of obvious defects and damage.

The nose gear doors, door hinges, and actuating mechanisms are in average condition. The gear doors are free of delamination and major repairs. The door hinges show only normal wear and are free of excessive side play or other irregularities. The gear door operating mechanisms appear serviceable and free of binding, operational interference, and excessive wear.

The landing gear tires, wheels, and brakes are in average condition showing normal wear and tear. The aircraft is equipped with a combination of Bridgestone and Michelin 225 mph rated tires.

The nose and main landing gear wheel wells are structurally sound with no major damage or major repairs noted. The wheel well structures are clean and appear to be treated with corrosion preventive compounds. No evidence of hydraulic fluid leakage was noted.

The installed components in the main wheel wells, including hydraulic / electrical components, valves, actuators, cable driven components, and flap drive gear boxes, are free of fluid leakage, damage, and other irregularities.

No visible identification plates were noted on the landing gear; however, the left main landing gear does have stenciling installed, which displays part number 65-57901-3 and serial number PW513.

All three (3) landing gear are clean. The gear are being prepared for long-term storage.

*(Photos 64 thru 69)*

## 7.0 WINGS

Upper (when accessible) and lower wing surfaces are inspected for general condition, damage, repairs, evidence of fuel leaks, paint condition, and evidence of corrosion. Flight control surfaces and visible mechanisms are inspected for general condition, damage, excessive wear, and repairs. Specific attention is given to composite control surfaces, wing-to-body fairings, and fillet panels to determine if delamination or substandard repairs are present. Our inspection was conducted with the leading and trailing edge devices extended.

The upper wing skin surfaces were not detail inspected due to a lack of access during this inspection. These areas were checked for obvious existing major repairs and other significant damage as viewed through the overwing emergency exit windows, from inside the main cabin. No major repairs or other significant damage was detected during our inspection. The upper sides of the ailerons, aileron tabs, flaps, spoilers, and leading edge devices appear free of structural and obvious mechanical damage.

The lower wing skins were detail inspected and found free of blending and other repairs. The lower wing skins are in average condition and free of significant defects and other damage. The lower wing surfaces are free of indications of previous or active fuel leaks and external fuel tank repairs.

The lower sides of the wing mounted flight controls and high lift devices are in average condition and free of damage. The lower sides of the ailerons, aileron tabs, flaps, flap vanes, flap canoe covers / fairings, and leading edge devices are in average condition and free of impact damage, major repairs, and other significant structural defects.

The leading edges of the wings are aerodynamically clean and polished; the leading edge devices are painted. Several repairs were noted on the leading edge devices of the No. 1, No. 2, No. 4, and No. 8 slats, as well as on the No. 1, No. 4, and No. 6 Krueger flaps.

The wing paint is in average condition with minor erosion noted. The wings are painted in the typical light gray color. Wing access panel placards and informational placards are installed.

*(Photos 70 thru 75)*

## 8.0 ENGINES / PYLONS

Engines are inspected for general exterior condition, obvious damage, or repairs to inlets, cowls, thrust reversers, and pylons. First stage fan blades and inlet guide vanes are given cursory inspections, when accessible, for evidence of any major impact damage.

Three (3) engines are installed on the Boeing 727 aircraft; two (2) pylon mounted engines on the left and right sides of the aft fuselage and an aft fuselage mounted center engine. The center engine is connected through an "S-duct" to an inlet located in the forward area of the vertical stabilizer. The left and right pod engines are commonly referred to as No. 1 and No. 3, respectively, and the center engine as No. 2.

The aircraft is in compliance with FAR Part 36 Stage III noise requirements.

The No. 1 engine was removed during our inspection, but was available for inspection.

The inlet rings of the engines are free of impact damage and repairs. The visible areas of the No. 1 and No. 3 engine inlet fan blades were inspected for any existing impact damage or evidence of any previous damage, of which none was noted.

The engine cowls are free of significant damage and show only minimal ground handling damage caused by installation / removal. The cowlings are free of fluids along the bottom of the cowlings, giving indication that the engines are free of obvious fluid or air leaks.

The engine thrust reversers and associated fairings are in average condition with no significant repairs or other irregularities noted. No abnormal leakage or fluid accumulation was noted on the exhaust sections of the engines.

The left and right pylons are in average condition and free of major external repairs. The pylon fairings and secondary structures are in average condition with no significant repairs or other damage noted. The engine cowlings are polished. A significant amount of scratches and dents were noted on all three (3) engine cowls.

*(Photos 76 thru 81)*

## 9.0 EMPENNAGE

The empennage includes any fuselage structure aft of the aft pressure bulkhead, the vertical and horizontal stabilizers, and associated flight control surfaces. Due to accessibility, this area is typically inspected from the ground only for general condition, obvious damage, and repairs.

The leading edges of the left and right horizontal stabilizers are in average condition with no damage noted. The lower surfaces of the horizontal stabilizers are free of major repairs and obvious damage. The stabilizer skin panels appear structurally sound and defect free. The lower sides of the elevators and the elevator tabs are in average condition with no evidence of damage, delamination, or repairs noted.

The leading edge of the vertical stabilizer is aerodynamically clean with no evidence of impact damage or repairs noted. The primary structure of the vertical stabilizer, including the visible skin panels, appears serviceable and free of significant defects and other damage. The sides of the rudder and rudder tabs are in average condition with no signs of obvious defects or damage noted. No evidence of previous hydraulic leaks was noted in the areas of the rudder power unit.

The empennage is in average condition. The empennage paint scheme consists of a polished vertical stabilizer with the American Airlines logo displayed on both sides. Both American Airlines logos were being removed at the time of our inspection.

*(Photos 82 thru 87)*



## AIRCRAFT SPECIFICATIONS

MODEL:	B727-223 ADV	MAX. TAXI WEIGHT:	178,500 lbs
MANUFACTURER:	Boeing Aircraft Company	MAX. GROSS TAKE-OFF WT.:	178,000 lbs
SERIAL NUMBER:	21086	MAX. LANDING WEIGHT:	154,500 lbs
LINE NUMBER:	1248	MAX. ZERO FUEL WEIGHT:	138,000 lbs
REG. NUMBER:	N859AA	MFGRS. EMPTY WEIGHT:	----- lbs
DATE OF MANUFACTURE:	February 15, 1977	OPERATORS WEIGHT EMPTY:	101,900 lbs
CURRENT OPERATOR:	American Airlines	PAYLOAD:	36,100 lbs

### AIRFRAME STATUS

TIME AS OF:	August 31, 2001	MTX. PROGRAM:	American's Mtx. Program:
TOTAL AIRFRAME HOURS:	68,147	"A" check @ 65 hour intervals; "B" check @ 475 hour intervals;	
TOTAL AIRFRAME CYCLES:	42,313	"C" check @ 3,000 hour intervals; Heavy "C" check @ 14,000	
TIME SINCE "HC" CHECK:	12,342 hours	hour intervals; Landing gear overhaul @ 28,000 hour / 3,650 day	
TIME SINCE "C" CHECK:	2,176 hours	intervals.	
MOD. STATUS:	FAR Part 121 Compliant – FAR Part 36 Stage III Compliant		
LANDING GEAR TSO:	Nose / RH = 12,342 hrs / 12-9-96; LH = 12,342 hrs / 12-10-96		

### ENGINE STATUS

ENGINE TYPE:		JT8D-9A		ENGINE MANUFACTURER:		Pratt & Whitney		
ENGINE MTX. PROGRAM:		On Condition with Pratt & Whitney Life Limits						
POS.	SERIAL NUMBER	TOTAL TIME	TOTAL CYCLES	TSLSV HOURS	CYCLES	FIRST LIMIT	REMAINING TO DISC: HOURS	CYCLES
1	665457*	76,654	50,151	<i>Engine is currently in the shop due to time expiration.</i>				
2	665177	76,759	49,544	8,380	4,438	934 hours	934/C9	2,712/T1
3	666268	51,609	31,574	6,316	3,242	1,733 hours	1,733/T1	2,615/T2

**\*NOTE:** ESN 665457 is not currently installed on this aircraft. Refer to the Engine Data section of this report for details. Engine times are current as of August 29, 2001.

### GENERAL DATA

FUEL CAPACITY:	52,700 POUNDS @ 6.7	INTERIOR:	Passenger Configuration: 12 first class and 126
	7,866 U.S. GALLONS		economy class seats; 4 galley units (1 forward and 3 aft);
FUEL SYSTEM:	Standard		3 lavatories (1 forward and 2 aft).

# AIRCRAFT CONDITION CHECKLIST

## IDENTIFICATION:

Aircraft Type	B727-223 ADV	Aircraft Inspected At	Mojave, CA
Current Operator	American Airlines	Date of Inspection	September 28, 2001
Registration	N859AA		
Serial Number	21086	Records Inspected At	Port Orange, FL
Date of Mfr	February 15, 1977	Date of Inspection	September 25 - 26, 2001
Engine Type	JT8D-9A		

## WEIGHT DATA:

Maximum Taxi Weight	178,500 lbs
Maximum Take-Off	178,000 lbs
Maximum Landing Weight	154,500 lbs
Maximum Zero Fuel Weight	138,000 lbs
Fuel Capacity	52,700 lbs

## AIRFRAME AND INTERIOR EQUIPMENT:

Galleys	Four	Location	1 forward and 3 aft
Lavatories	Three	Location	1 forward and 2 aft
Air Stairs	One	Location	Aft ventral
Passenger Seats	138	Locations / Types	12 first class and 126 economy class
Overhead Bins	Large 180 pound capacity overhead bins		
Cargo Door	N/A		
Aux Power Unit	P/N 380678-1-1 S/N P-36871 TT: 16,096 TC: 9,619 TSO: 11,008 CSO: 6,834		

## MAJOR AVIONICS EQUIPMENT:

Description	Mfr	Type	Quantity
Autopilot	Sperry	4030951-901 / 2585804-9	One
Air Data Computer	Honeywell	HG480B13 / ABB4321	Two
VHF Comm.	Collins / King	618M-3 / KTR9100A	Two
VHF Nav.	Collins	51RV-1	Two
ATC Mode S Transponder	Bendix / King	TRA-67A	One
ATC Mode C Transponder	King	KXP7500	One
Weather Radar	Bendix	RDR-1F	One
GPS	Trimble	HT9100	One
DME	Collins	860E-4	Two
ACAS II	Honeywell	TPA-81A (Enhanced)	One
GPWS / Windshear	Sundstrand	Mark VII	One
ADF	*	*	*
Radio Altimeter	Collins	860F-1	One
Marker Beacon	Collins	51Z-4	One
Anti-Skid Unit	Crane	Mark II	One
CVR	Fairchild	A100A	One
DFDR	Allied Signal	980-4120-RXUS	One

*\*NOTE: At the time of our inspection, the ADF Receiver was removed.*

# AIRCRAFT CONDITION CHECKLIST

**AIRCRAFT TYPE:** B727-223 ADV

**REGISTRATION:** N859AA

**AIRFRAME TIMES** as of: August 31, 2001

Total Hours 68,147

Total Cycles 42,313

## AIRFRAME LIMITS:

Type of Check "C" "HC"

Check Interval 3,000 hrs 14,000 hrs

Time Since 2,176 hrs 12,342 hrs

## LANDING GEAR LIMITS:

Position Nose Left Right

Overhaul Limit 28,000 hrs / 3,650 dys 28,000 hrs / 3,650 dys 28,000 hrs / 3,650 dys

Time Since Overhaul 12,342 hrs / 12-9-96 12,342 hrs / 12-8-96 12,342 hrs / 12-9-96

## ENGINE DATA:

Position In Shop No. 2 No. 3

Type JT8D-9A JT8D-9A JT8D-9A

Serial Number 665457 665177 666268

Total Hours 76,654 76,759 51,609

Total Cycles 50,151 49,544 31,574

Hours Since Shop Visit 8,473\* 8,380 6,316

Cycles Since Shop Visit 4,435\* 4,438 3,242

Hours to Next Hard Limit 34/Variou\*s 934/C9 1,733/T1

Cycles to Next Hard Limit 1,997/T1\* 2,712/T1 2,615/T2

*\*NOTE: ESN 665457 is currently in the shop due to time expiration. Refer to the Engine Data section of this report for details. Engine data is current as of August 29, 2001.*

## QUALITY OF MAINTENANCE RECORDS:

A general documentation review was accomplished by **Pro-Tech Advisors, Inc.** Our documentation review consisted of the review of limited information in the form of computerized data and summaries provided by American Airlines. All records reviewed appear to be accurate, complete, and in compliance with the requirements of FAR Part 121. No discrepancies were noted. It should be noted that our documentation review did not include detailed research to verify accuracy of the supplied information and component life limited traceability was not established or verified.

# AIRCRAFT CONDITION CHECKLIST

**AIRCRAFT TYPE:** B727-223 ADV

**REGISTRATION:** N859AA

## **REVIEW OF SIGNIFICANT AIRWORTHINESS DIRECTIVES AND FARs:**

Our review of the Airworthiness Directive report provided indicates that all mandatory ADs are being accomplished as required. Refer to the AD Summary section of this report for details on repetitive or outstanding Airworthiness Directives. The aircraft is equipped as required for FAR Part 121 operation.

## **REVIEW OF SIGNIFICANT SERVICE BULLETINS:**

Our audit did not include a review of non-mandatory service bulletins. For the status of the service bulletins mandated by the Aging Airplane Structural Modification Program, refer to the applicable section of this report.

## **MAJOR MODIFICATIONS SINCE MANUFACTURE:**

Major modifications include installation of Raisebeck Lightweight Noise Reduction Kit per STC # ST00555SE and avionics upgrades including installation of a Trimble HT9100 Global Positioning System, upgrade of the DFDR to 19 parameters, and upgrade of TCAS system to ACAS II Enhanced TPA-81A, which incorporates Change 7. No other major modifications, other than normal avionics and interior upgrades, were noted.

## **ACCIDENTS AND MAJOR DAMAGE HISTORY:**

Our physical inspection did not reveal that the aircraft has been repaired as a result of, or suffered any damage caused by, a major incident or accident.

## **MISSING EQUIPMENT:**

At the time of our inspection, the ACARS Optional Auxiliary Terminal, No. 1 ADF Receiver, No. 2 GFMS, and Auto-Throttle Computer were missing.

# AIRCRAFT CONDITION CHECKLIST

**AIRCRAFT TYPE:** B727-223 ADV

**REGISTRATION:** N859AA

Exterior Condition:	Poor	Fair	Average	Good	Excellent	Notes / Remarks
Paint	_____	_____	√	_____	_____	AA logo removed / red stripe / painted blue
Forward Fuselage	_____	_____	√	_____	_____	Numerous repairs noted
Mid Fuselage	_____	_____	√	_____	_____	No significant damage noted
Aft Fuselage	_____	_____	√	_____	_____	Numerous repairs noted
Belly Skins	_____	_____	√	_____	_____	No corrosion noted
E & E Compartment	_____	_____	√	_____	_____	No signs of fluid spills / some debris
Upper Wing	_____	_____	√	_____	_____	Clean / no major repairs visible
Lower Wing	_____	_____	√	_____	_____	No skin blending or corrosion noted
Flaps	_____	_____	√	_____	_____	Several repairs on leading edge flaps/ slats
Ailerons	_____	_____	√	_____	_____	No delamination visible from ground
Horizontal Stabilizer	_____	_____	√	_____	_____	Leading edges are smooth / no leaks noted
Vertical Stabilizer	_____	_____	√	_____	_____	No fluid leaks noted
Wheel Wells	_____	_____	√	_____	_____	Clean / no fluid leaks noted
Landing Gear	_____	_____	√	_____	_____	Clean / no fluid leaks
Wheels & Tires	_____	_____	√	_____	_____	Normal wear and tear
Engine Nacelles	_____	_____	√	_____	_____	Leading edge smooth/scratches noted on cowling
Thrust Reversers	_____	_____	√	_____	_____	No defects noted
Pylons	_____	_____	√	_____	_____	No fluid leaks noted
Doors	_____	_____	√	_____	_____	Operate smooth / no signs of pressurization leaks
Cargo Compartment	_____	_____	√+	_____	_____	Smoke and fire detection system installed
<b>Interior Condition:</b>						
Passenger Seats	_____	_____	√	_____	_____	Seat covers / Airfone system removed
Lavatories	_____	_____	√+	_____	_____	No significant defects noted
Galleys	_____	_____	√	_____	_____	Normal wear and tear
Flight Attd. Stations	_____	_____	√	_____	_____	Three seat assemblies
Windows	_____	_____	√	_____	_____	Minor scratches noted
Overhead Bins	_____	_____	√	_____	_____	Normal wear and tear
Ceilings	_____	_____	_____	√	_____	No defects noted
Sidewalls	_____	_____	_____	√	_____	No defects noted
Floor / Carpet	_____	_____	√	_____	_____	Dirty / center aisle flooring is soft
<b>Cockpit Condition:</b>						
Seats	_____	_____	√	_____	_____	Normal wear and tear
Instruments / Equip.	_____	_____	√	_____	_____	All instruments are installed
Windows	_____	_____	√	_____	_____	No delamination noted

**REMARKS:**

The overall structural and cosmetic condition of the aircraft is average. No conditions were noted that would impair or detract from the overall value or marketability of the aircraft. The aircraft has ceased operation with American and is currently at Avtel in Mojave, California.

# AIRCRAFT CONDITION CHECKLIST

**AIRCRAFT TYPE:** B727-223 ADV

**REGISTRATION:** N859AA

## SUPPLEMENTARY NOTES:

- The physical inspection of this aircraft was completed by **Pro-Tech Advisors, Inc.** at the specific request of **Pegasus Aviation, Inc.** Our physical inspection was conducted on September 28, 2001 at the Avtel maintenance facilities in Mojave, California. At the time of our inspection, the aircraft was undergoing a series of maintenance tasks to ready the aircraft for long-term storage. Some of these tasks included the removal of American Airlines' logos, the removal of the airfone system, and the removal of all cabin seat covers. The No. 1 engine was also removed at the time of our inspection.
- The aircraft Federal Aviation Administration Certificate of Airworthiness and Certificate of Registration have been removed from the aircraft.
- The inspection performed included a detailed visual walk-around of both the interior and exterior of the aircraft. The overall condition of the aircraft is average based on age (24.5 years), total airframe hours (68,147 as of August 31, 2001), total airframe cycles (42,313 as of August 31, 2001), and current maintenance status. The aircraft was rated on a five (5) point scale ranging from poor, fair, average, good, to excellent. The rating is based on comparison with other aircraft having similar age, total aircraft time, and total aircraft cycles.
- The aircraft is equipped with the standard Boeing 727-200 series flight instrumentation, navigation, communications, and auto flight control systems. In addition to the standard equipment, the aircraft is equipped with a Bendix RDR-1F weather radar, a Honeywell Enhanced TPA-81A Alert and Collision Avoidance System (ACAS II), a Bendix / King TRA-67A ATC mode "S" transponder, a Sundstrand Mark VII Ground Proximity Warning System (GPWS) which incorporates windshear detection functions, a single Trimble HT9100 Global Positioning System (GPS), and a Lear Siegler Performance Monitoring System (PMS). The aircraft is also equipped with a Smith Industries Digital Fuel Quantity Indicating System, which is displayed in pounds.
- The installed ACAS II system incorporates Change 7.0, which is a current European requirement. Honeywell's new system is enhanced because the TCAS and Mode S transponder contain not only Change 7.0 improvements but additional improved features. The Enhanced TPA-81A processor contains the functionality and growth provisions necessary to meet all existing and anticipated user requirements for the next ten years.
- American has reported that the installed flight data recorder is currently recording 19 parameters, meeting current FAR Part 121 requirements.
- At the time of our inspection, the following avionics black boxes were removed:
  - ACARS Optional Auxiliary Terminal
  - ADF, No. 1
  - GFMS, No. 2
  - Auto-Throttle Computer
- The main cabin is equipped to accommodate a total of one hundred thirty-eight (138) passengers in a dual class configuration. The first class compartment accommodates twelve (12) passengers and the economy class compartment accommodates one hundred twenty-six (126) passengers. At the time of our inspection, the airfone system was in the process of being removed, which includes the removal of the phones and associated wiring and switches, and installation of blanking plates. The first and economy class seat covers were also removed.
- The main cabin is not equipped with a visual entertainment system.

# AIRCRAFT CONDITION CHECKLIST

**AIRCRAFT TYPE:** B727-223 ADV

**REGISTRATION:** N859AA

## SUPPLEMENTARY NOTES: *continued*

- The overall condition of the galleys and adjacent areas is average. The main cabin is equipped with four (4) galley units arranged in two (2) complexes. The forward right galley complex consists of an aft facing G-1 unit; a forward facing windscreen is located aft of the R-1 door. The aft galley complex consists of an aft facing G-3 unit and a forward facing G-4 unit, which are located forward and aft of the aft left service door, as well as a side facing G-4A unit which is located just aft of the G-4 unit.
- The overall condition of the flight attendant stations is average. This aircraft is equipped to accommodate a total of five (5) flight attendants at three (3) locations. One (1) aft facing double occupancy flight attendant seat is located just forward of the L-1 door, one (1) forward facing single occupancy seat is located on the center aisle wall of the G-3 galley unit, and one (1) forward facing double occupancy seat is located on the aft ventral door.
- The overall condition of the lavatories is average to good. The aircraft is equipped with three (3) lavatories; one (1) is located in the forward right section of the main cabin and two (2) are located in the aft left and right sections of the cabin.
- The forward, mid, and aft fuselage areas are structurally sound and in average condition overall, both structurally and cosmetically.
- A detailed inspection was accomplished on external repairs to determine quality of workmanship; however, documentation and conformity to the manufacturer's structural repair requirements, or other approved data, should be verified for each repair. Photographs of typical repairs and repairs that may be considered significant can be found in the Photographs section of this report under Repairs. Please refer to this section of the report for additional details.
- The fuselage paint is in average condition. The aircraft is painted in American Airlines' livery, which consists of a polished fuselage with three (3) painted stripes running from nose to tail. A blue stripe is painted at the window belt, with a white stripe and red stripe painted below it. At the time of our inspection, AvTel Repair Station maintenance personnel were removing all of American Airlines' logos and re-painting the red stripe blue.
- The cargo compartments are equipped with a smoke detection and fire extinguishing system as is required per current Federal Aviation Regulations (FARs).
- The overall structural and cosmetic condition of the nose and main landing gear is average. All three (3) landing gear are clean. The gear are being prepared for long-term storage.
- The aircraft is in compliance with FAR Part 36 Stage III noise requirements.
- The aircraft is being maintained on American Airlines' maintenance program which consists of "A" checks at 65 hour intervals; "B" checks at 475 hour intervals; "C" checks at 3,000 hour intervals; and Heavy "C" checks at 14,000 hour intervals.
- The last "C" check was accomplished at TAT: 65,971. The last "HC" check was accomplished at TAT: 55,805.



**PHYSICAL SURVEY REPORT  
AMERICAN AIRLINES  
B727-223 ADV  
REG. N859AA S/N 21086**

**AVIONICS INVENTORY**

<u>Nomenclature</u>	<u>Manufacturer</u>	<u>Model / Part No.</u>
Weather Radar	Bendix	RDR-1F
ILS Compass Rack, No. 1 & 2	Sperry	614937-101
Steering Computer, No. 1 & 2	Collins	562A-5F
Instrument Amplifier, No. 1 & 2	Collins	344C-1B
Flight Instrument Accessory Unit	Boeing	65-60214-106
Comparator Warning Monitor	Collins	54W-1
VHF Nav., No. 1 & 2	Collins	51RV-1
Global Positioning System	Trimble	HT9100
Upper Yaw Damper	Sperry	4030952-901
Lower Yaw Damper	Sperry	4030952-901
Air Data Computer, No. 1	Honeywell	HG480B13
Air Data Computer, No. 2	Honeywell	ABB4321
Battery Charger	Eldec	2-301
Pitch Control Channel A	Sperry	2585804-9
Roll Control Channel	Sperry	4030951-901
Auto Pilot Accessory Unit	Boeing	65-24917-42
Performance Data Computer	Lear Siegler	163356-85-01
Static Inverter	Bendix	39B168-1-B
Battery	Saft	016833000
Anti-Skid	Crane	Mark II
Cabin Temperature Controller	Garrett	54A376-4
Fire / Overheat Detect Accessory Unit	Boeing	65-24920-3
Left Window Heat Controller, No. 1 & 2	Pacific Electro	231-2
Right Window Heat Controller, No. 1 & 2	Pacific Electro	231-2
Landing Gear Accessory Unit	Boeing	65-60211-32
Marker Beacon	Collins	51Z-4
ATC Mode S Transponder, No. 1	Bendix / King	TRA-67A
ATC Mode C Transponder, No. 2	King	KXP7500
DME, No. 1 & 2	Collins	860E-4
Maintenance Cargo Fire Unit	Simmonds Precision	301A5-0102

## AVIONICS INVENTORY

*continued*

<u>Nomenclature</u>	<u>Manufacturer</u>	<u>Model / Part No.</u>
VHF Comm., No. 1	Collins	618M-3
VHF Comm., No. 2	King	KTR9100A
Selcal	Motorola	NA136
Passenger Address Amplifier	Gables	G-947B
Audio Accessory Unit	Boeing	65-52804-13
Radio Altimeter	Collins	860F-1
P.A. Accessory Unit	Boeing	65-26200-9
GPWS / Windshear	Sundstrand	Mark VII
RFU	Claircom	1013893-0001
Power Supply Unit	Claircom	1013487-0001
Base Band Unit	Claircom	1013973-0002
ACAS II Processor (Enhanced)	Honeywell	TPA-81A
Vertical Gyro, No. 1 & 2	Bendix	19917-2C
Directional Gyro, No. 1 & 2	Sperry	2588302-4
Voltage Regulator, No. 1-3	Westinghouse	905D977-4
Load Control, No. 1-3	Sundstrand	700662A
Generator Control Panel, No. 1-3	Westinghouse	902F242-5
Transformer Rectifier, No. 1-3	Eldec	2-299
Bus Protection Panel	Westinghouse	902F283-2
APU Voltage Regulator	Westinghouse	905D977-4
APU Generator Control Panel	Westinghouse	902F242-5
Digital Flight Data Recorder	Allied Signal	980-4120-RXUS
Cockpit Voice Recorder	Fairchild	A100

*The following units were removed at the time of our inspection:*

*ACARS Optional Auxiliary Terminal*

*ADF, No. 1*

*GFMS, No. 2*

*Auto-Throttle Computer*





**ENGINEERING SPECIFICATION  
MAINTENANCE**

ESM	727-223		
PAGE	1	REV	DN
DATE	3-1-2001		

FORM 470-1A  
(EPM 05-50)

TITLE	ENGINEERING SPECIFICATION MAINTENANCE	EQUIPMENT-COMPONENT IDENTIFICATION	Boeing 727-223, 727-227 & 2A7 Aircraft
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**I. INTRODUCTION**

This is the American Airlines Engineering Specification Maintenance for the airplanes listed above in accordance with R00 592 - Airplane and R00 750 - Engine Reliability Change Control Programs (Reference FAA Operations Specifications, D74 para. b.). It summarizes those tasks and their frequencies specified by Engineering to adequately maintain this aircraft. Unless otherwise noted, numbers shown in the "Interval/(Threshold)" column are in flight hours and when more than one "Interval (Threshold)" is noted, the required "Interval (Threshold)" is the one that will occur first. Detailed specifications of work content are covered by documents noted in the "Control Document" column. Details of the work specified are contained within the Maintenance Check Manual (MCM) job cards, ESO and/or the applicable Maintenance Manuals and Engineering Specification Orders.

3

This specification is approved for use by evidence of an approval signature on the bottom of this page. Revisions to individual pages are approved for use by evidence of the revision letter and date at the top of each page.

Unless otherwise noted, items are applicable to all above listed aircraft.

The following codes are used in this Specification:

PS - Periodic Service Check	E/C - Engine Change
SIC- Special Items Card 0912	MM - Maintenance Manual
A - A Check	BOW - Bill of Work, JT8D Engine Program
B - B Check	Sample - Structural Sample Program
C - Maintenance Check	O/C - On Condition
HC - "Heavy C" Maintenance Check	HSM - Hot Section Maintenance - APU
CM - Conditioning Monitoring	EHM - Engine Heavy Maintenance - APU
CPC - Corrosion Prevention & Control	SV - Structural Visit

- Engine Cycle - Each of the following is considered as one engine cycle.
  - 1 ) A typical flight consisting of a start, take-off, landing and shutdown.
  - 2 ) A touch & go landing or a go-around made during pilot training.
- Aircraft Cycle - A typical flight consisting of a take-off and landing is considered an aircraft cycle.
- Flying Day - A flying day begins whenever an aircraft first flies during a calendar day and ends on the arrival of the last flight or at 2400 local of the same calendar day. A calendar day during which no flying is performed will not be counted as a flying day.
- Calendar Time - Any time limit expressed as "Days", "Weeks", "Months", or "Years" is intended as calendar time unless the limit is specifically expressed as a "Flying Day" or some multiple of "Flying Days".

PREPARED BY Justin Fuller <i>Justin Fuller</i> 509035	DATE PREPARED 1/29/01	APPROVED BY C. E. Williams <i>C.E. Williams</i> 162862	DATE APPROVED 2/1/01
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# ENGINEERING SPECIFICATION MAINTENANCE

ESM	727-223		
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## II. DESCRIPTION OF PROGRAM (Cont'd)

Scheduled work outlined in this document will be accomplished on the following checks:

- PERIODIC SERVICE (PS) - Accomplished maximum 2 flying days since last PS or higher check.
- - If more than two (2) days have elapsed since the last PS or higher check, an airplane may be dispatched from a Class III-B or Class IV station to a qualified PS Maintenance Station for a Periodic Service Check. A maximum of three (3) flight legs may be flown prior to accomplishing the PS or higher check.
  - - - Only reasons for deferral of PS
    1. Flight operations suspended at a Station(s) due to severe weather conditions.
    2. An airplane being out-of-service for mechanical reasons which may be repaired by personnel not qualified to accomplish a PS.
- Special Items Card 0912 higher - Scheduled in conjunction with (PS) when aircraft overnights in Class I, II, or III-A station and an "A" or higher check is not accomplished.

### ALLOWABLES:

A Check (A) - 65 Flight hours.

B Check (B) - 475 Flight hours.

C(C) - Maintenance Check - 3000 Flight hours.

HC (HC) - Heavy "C" Maintenance Check - initial HC 16,000 Flight Hours, maximum, subsequent HC's 14,000 Flight hours maximum.

Sample - Structural Sample Program item, see Chapter 51-4 for description.

A scheduled maintenance "B" Check accomplished within a specified interval simultaneously includes accomplishment of lower level Maintenance "A" Check items. Certain items controlled to a "Hard Time" frequency are scheduled for accomplishment in conjunction with "B" Checks.

Higher Level Check                      Include Lower Level Check Requirements for:

"B" Check	"A" Check & PS
"A" Check	PS



**ENGINEERING SPECIFICATION  
MAINTENANCE**

<b>ESM</b>	727-223		
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<b>DATE</b>	12-7-2000		

II. DESCRIPTION OF PROGRAM (Cont'd)

C CHECK

A scheduled maintenance visit accomplished within a specified interval includes accomplishment of lower level maintenance checks (e.g., "PS", "A" & "B") simultaneously with items specified for accomplishment in C - Check multiples. Further, certain maintenance items controlled to a "Hard Time" frequency are packaged for accomplishment with the C and HC Maintenance Checks.

**NOTE:** The C - Maintenance Check is a fully phased maintenance check. The frequency column of this ESM specifies the frequency of accomplishment for each item at C - Check intervals (e.g., C = 3000, 2 C = 6000, etc.). The schedule of accomplishment for each item is in accordance with the 727 Maintenance Check Manual Master Record Card.

HEAVY C CHECK -

Heavy C Maintenance Check is phased to incorporate HC and HC multiples. The frequency column of this ESM specifies the frequency of accomplishment for each item at HC Check intervals. The schedule of accomplishment for each item is reflected in the 727-223 Heavy "C" Check Master Record Card published in the 727 Maintenance Check Manual.

CMM (Condition Monitored Maintenance) - This is the program through which the condition and reliability of the engine and APU and its accessories are controlled. This program is described in detail in Engineering Report ROO-750.

III. GENERAL NOTES

A. JT8D and APU Bill of Work (BoW) - The Bill of Work is a form which contains pertinent information regarding the history of an engine requiring corrective action. The information on the form is described in Engineering Report ROO-750 "CMM." The Bill of Work specifies the work which must be accomplished to correct the specific engine conditions. In addition, the Bill of Work establishes the "hours to go" or "cycles to go" as well as the limiting part/unit for the engine when the work has been completed.

The APU Bill of Work is a standard pattern composed of 3 degrees of reconditioning; Check and Repair, Hot Section Maintenance (HSM) and Engine Heavy Maintenance (EHM). The scope of work specified is dictated by condition of APU.

The Bill of Work becomes a permanent part of the engine and APU log upon delivery of the engine to the field.

APU hours and cycles will be tracked as follows: APU hours will be at a ratio of one aircraft hour to one APU hour. APU cycles will be tracked at a ratio of one aircraft cycle to one APU cycle plus 1 cycle per day.



## ENGINEERING SPECIFICATION MAINTENANCE

ESM	727-223		
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### III. GENERAL NOTES (cont'd)

- B. If a "sample" component overhaul is specified as a condition for escalation to a higher overhaul time, Engineering should be notified prior to scheduled accomplishment of the sample. No component may exceed the sample time without Engineering approval.
- C. Structure Sampling Program - Refer to System 51 for detailed information - contains inspection requirements for structurally significant items which must be accomplished on a recurring basis on a portion of the fleet. The sample "fleet" consists of all the 727-023 and -223 aircraft, as defined in ESM 727-023 and ESM 727-223.
- D. All maintenance manual work cards, listed in the "CONTROL DOCUMENT" column with the number "9" in the first digit of the ATA sub chapter, example, "MM71-91-01", denotes the work cards have been removed from the Aircraft Maintenance Manual and have been placed in the Maintenance Check Manual (MCM), Section 12.

All other Maintenance Manual references are referring to a specific ATA chapter, sub-chapter and section of the Aircraft Maintenance Manual.

### IV. GENERAL DEFINITIONS

Action Notice - (A.N.)

Airworthiness Directive - (A.D.)

AT(@) - This symbol @ in the "Special Requirements" column indicates a special requirement is noted in the "Task Description" column.

Bench Check (B/C) - A functional check of an item in the shop in accordance with the approved specification to determine whether or not the item may be returned to service or whether it requires adjustment, repair or overhaul.

Check - The procedure necessary to determine the operating condition of the mechanism, component, or part of the aircraft; by measurement, operation, examination, or any combination thereof.



ESM	727-223		
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#### IV. GENERAL DEFINITIONS (Cont'd)

Condition Monitoring (CM) - A maintenance process for items having neither Hard Time nor On Condition maintenance as their primary maintenance process. CM is accomplished by appropriate means of finding and solving problem areas. Components and systems so identified are maintained in a continuous airworthiness condition by means of data collection and analysis involving the whole population of an item or a system.

Functional Check (F/C) - A quantitative check to determine if one or more functions of a system or component performs within specified limits.

Hard Time - A maintenance process by which a component is scheduled for removal at specified interval for overhaul in accordance with applicable shop manual procedures; also applies to total life of parts or units.

Maintenance Processes - Maintenance processes specified in this document follow MSG-2 guidelines.

On Condition (O/C) - A maintenance process by which a determination of continued airworthiness may be made by periodic inspection, measurements, tests or other means without a teardown inspection or overhaul.

Operational Check (OP/C) - A qualitative check to determine that a system or component is operating in a normal and intended manner. Does not require quantitative tolerances.

Overhaul - The work performed on aircraft equipment in accordance with FAR 43.2(a), reference Engineering Procedures Manual, Section 02-15.

Restore - The work (on/off the aircraft) necessary to return the item to a specific standard as defined in the approved relevant manual.

Threshold - The specific value of a usage parameter (flight cycles, flight hours, etc.) at which the first inspection of some particular level or method must be conducted.

Visual Check - A general check of condition and security to be performed visually without the aid of supplementary devices such as magnifying glasses, dye penetrant, etc.

Refer to System 51 - Structures General and to the General Procedures Manual for additional terminology.



**HARD TIME COMPONENT LISTING**  
**AMERICAN AIRLINES**  
**B727-223 ADV**  
**REG No. N859AA S/N 21086**

*As of: August 31, 2001 TAT: 68,147 TAC: 42,313*

Description	Interval	Time Remaining
Evacuation slide, No. 1	977 Days	201 Days
Evacuation slide, No. 2	967 Days	566 Days
Evacuation slide, No. 3	1,065 Days	173 Days
Evacuation slide, No. 4	1,003 Days	903 Days
Upper anti-collision strobe light	3,000 Hrs	824 Hrs
Lower anti-collision strobe light	3,000 Hrs	824 Hrs
Air cycle machine, LH	13,000 Hrs	10,824 Hrs
Air cycle machine, RH	13,000 Hrs	2,839 Hrs
Air cycle machine	13,000 Hrs	10,824 Hrs
Air flow multiplier	13,000 Hrs	10,824 Hrs
Rudder trim actuator	30,000 Hrs	17,658 Hrs
Nose landing gear assembly	3,650 Days	1,924 Days
	28,000 Hrs	15,658 Hrs
Nose landing gear lock retention bungee	30,000 Hrs	20,378 Hrs
Nose landing gear drag brace	14,000 Hrs	1,658 Hrs
Left main landing gear assembly	3,650 Days	1,925 Days
	28,000 Hrs	15,658 Hrs
Left main landing gear downlock crank	24,000 Hrs	16,613 Hrs
Left main landing gear beam assembly	30,000 Hrs	20,378 Hrs
Left main landing gear anti-skid brake valve	17,600 Hrs	15,424 Hrs
Right main landing gear assembly	3,650 Days	1,924 Days
	28,000 Hrs	15,658 Hrs
Right main landing gear downlock crank	24,000 Hrs	16,613 Hrs
Right main landing gear beam assembly	30,000 Hrs	20,378 Hrs
Right main landing gear anti-skid brake valve	17,600 Hrs	14,652 Hrs
Fuel pump #1	17,250 Hrs	2,809 Hrs
Fuel pump #2	17,250 Hrs	6,598 Hrs
Fuel pump #3	12,000 Hrs	5,667 Hrs
Fuel control unit #1	17,250 Hrs	7,050 Hrs
Fuel control unit #2	17,250 Hrs	8,720 Hrs
Fuel control unit #3	17,250 Hrs	9,129 Hrs
Transmission assembly #1	80,000 Hrs	67,296 Hrs
Transmission assembly #2	80,000 Hrs	74,586 Hrs
Transmission assembly #3	80,000 Hrs	77,306 Hrs
AC generator #1	6,500 Hrs	1,424 Hrs
AC generator #2	6,500 Hrs	1,695 Hrs
AC generator #3	6,500 Hrs	3,806 Hrs

**HARD TIME COMPONENT LISTING  
AMERICAN AIRLINES  
B727-223 ADV  
REG No. N859AA S/N 21086**

*As of: August 31, 2001 TAT: 68,147 TAC: 42,313*

<b>Description</b>	<b>Interval</b>	<b>Time Remaining</b>
AC generator #4	6,500 Hrs	6,094 Hrs
Lavatory system ball valve	1,580 Days	913 Days
Cabin pressure outflow valve, LH	4,400 Hrs	2,224 Hrs
Cabin pressure outflow valve, RH	4,400 Hrs	2,224 Hrs
Aileron power control package unit	18,000 Hrs	3,809 Hrs
Aileron rudder control power unit	18,000 Hrs	16,449 Hrs
Elevator control unit	15,225 Hrs	7,838 Hrs
Left main landing gear fitting	12,000 Cyc	5,501 Cycles
	3,650 Days	1,924 Days
Right main landing gear fitting	12,000 Cyc	5,501 Cycles
	3,650 Days	1,924 Days
Hydraulic system pump #1	50,000 Hrs	22,373 Hrs
Hydraulic system pump #2	50,000 Hrs	22,373 Hrs

# Airframe Airworthiness Directive Repetitive / Open Inspections

Aircraft B727-223 ADV N859AA MSN 21086

TAT: 68147

TAC: 42313

as of: 8/31/2001

AD No.	AD Subject	Last Accomplished				Interval	Next Due	Time Remaining	
		Date	Hours	Cycles					
74-08-09R2	No smoking placards and ashtrays in lavatories		67806		1000	H	68806	659 Hours	
79-04-01R3	Main landing gear lock system	11/30/2000	65971	41255	3600	C	44855	2542 Cycles	
		11/30/2000	65971	41255	11000	H	76971	8824 Hours	
			67806		1200	H	69006	859 Hours	
81-19-07	Repetitive inspection of the air flow multiplier		67806		1000	H	68806	659 Hours	
85-24-02	Inspect upper wall of the air conditioning ram-air plenum chamber	11/30/2000	65971	41255	8000	H	73971	5824 Hours	
		11/30/2000	65971	41255	1461	D	11/30/2004	1187 Days	
88-17-06	Inspect the wing upper surface stringer for cracks Previously repaired stringer - Par. F			35814	11000	C	46814	4501 Cycles	
				35814	11000	C	46814	4501 Cycles	
88-22-09	Operational & funct. check of take-off config. warning system		67966		200	H	68166	19 Hours	
	<i>*NOTE: American Airlines is tracking this AD with a 250 hour interval. Current time remaining @ 250 hour interval is 69 hours.</i>								
89-23-17	Inspect the No. 1 & No. 3 engine aft mount support fittings	11/30/2000	65971	41255	3000	C	44255	1942 Cycles	
90-07-05	Inspect I/B T/E flaps and tracks for cracks and corrosion	11/30/2000	65971	41255	3000	C	44255	1942 Cycles	
		11/30/2000	65971	41255	546	D	5/30/2002	272 Days	
					365	D	7/19/2002	322 Days	
90-12-11R1	Inspect escape slide release cables for fraying or breakage	7/19/2001							
90-24-11	Visual inspection of BS 1183 pressure bulkhead web & strap	11/30/2000	65971	41255	3500	C	44755	2442 Cycles	
90-25-03	Aging Airplane Corrosion Prevention and Control Program				Refer to Aging Airplane CPCP section of this report for details				
91-03-19R1	Inspect for fuselage skin cracks from BS 1090 to BS 1110	11/30/2000	65971	41255	3000	C	44255	1942 Cycles	
		11/30/2000	65971	41255	546	D	5/30/2002	272 Days	
91-07-11	Inspect the No. 2 cargo doorway forward & aft frames for cracks	11/30/2000	65971	41255	3000	C	44255	1942 Cycles	
91-09-03	Inspect for cracks at MLG door forward hinge fittings	11/30/2000	65971	41255	3000	C	44255	1942 Cycles	
91-09-07	Inspect the fwd entry doorway frame per SB 53-0153	11/30/2000	65971	41255	3700	C	44955	2642 Cycles	
91-22-08	Inspect MLG wheel well pressure floor at BS 910	11/30/2000	65971	41255	4000	C	45255	2942 Cycles	
92-19-11	Insp to detect cracks in the MLG wheel well pressure floor	11/30/2000	65971	41255	4000	C	45255	2942 Cycles	
94-02-04	Insp. fuselage frames BS 760.95, 783.95, 825.95, 848.95 for cracks			39840	6000	C	45840	3527 Cycles	
94-04-03	Inspect the slat track roller bearing bolts for cracks			39840	5000	C	44840	2527 Cycles	
94-07-08	Aging Airplane Structural Inspection Program								
	SB 55-075 - Fin stringer to rib chord attachment insp. & mod			35814	10000	C	45814	3501 Cycles	
	SB 55-076 - Fin rear spar & torque box chord insp./repair/mod.			35814	10000	C	45814	3501 Cycles	
	SB 57-112L - Wing rib upper chord @ WBL 70.5			35814	14000	C	49814	7501 Cycles	
	SB 57-112R - Wing rib upper chord @ WBL 70.5			39840	3500	C	43340	1027 Cycles	
	SB 57-134 - Slat track to slat attach bolt replacement		55805		20000	H	75805	7658 Hours	
	SB 57-160 - Wing T/E - I/B midflap rear spar upper chord	11/30/2000	65971	41255	3000	C	44255	1942 Cycles	
		11/30/2000	65971	41255	457	D	3/2/2002	183 Days	
	SB 57-171 - Wings/flight surfaces - L/E slat down stop mod.	11/30/2000	65971	41255	3000	C	44255	1942 Cycles	
		11/30/2000	65971	41255	457	D	3/2/2002	183 Days	

## Airframe Airworthiness Directive Repetitive / Open Inspections

Aircraft B727-223 ADV N859AA MSN 21086

TAT: 68147

TAC: 42313

as of: 8/31/2001

AD No.	AD Subject	Last Accomplished				Interval	Next Due	Time Remaining
		Date	Hours	Cycles	Interval			
94-23-10	Replace the lavatory drain seals - Par. B, 1, II	11/30/2000	65971	41255	546	D	5/30/2002	272 Days
	Insp. each lavatory drain system in-line drain valve - Par. B, 2, I	11/30/2000	65971	41255	5000	H	70971	2824 Hours
		11/30/2000	65971	41255	730	D	11/30/2002	456 Days
	Inspect the lavatory drain valve and inner / outer seals - Par. B, 2, II		67900		1000	H	68900	753 Hours
	Leak check/replace seals of flush/fill line cap - Par. B, 3, II	11/30/2000	65971	41255	5000	H	70971	2824 Hours
	Provide proced. for accomp. insp. for leaks in lav. drain sys. - Par. B,4	8/25/2001	68107		45	H	68152	5 Hours
96-06-05	Inspect to detect cracks & loose hinge brackets of elev. rear spar	11/30/2000	65971	41255	4000	H	69971	1824 Hours
97-02-09	Inspect the modified MLG actuator rib fitting - Par. E	11/30/2000	65971	41255	2500	C	43755	1442 Cycles
97-05-08	Inspect forward support fittings of the No. 1 & 3 engines, para B	7/19/2001		42142	600	C	42742	429 Cycles
		7/19/2001		42142	100	D	10/27/2001	57 Days
	Inspect forward support fittings of the No. 1 & 3 engines, para D	11/11/2000	65971	41255	3000	C	44255	1942 Cycles
		11/11/2000	65971	41255	730	D	11/11/2002	437 Days
99-04-22	Inspect the lower skin panels of the fuselage lap joints for cracks			42090	600	C	42690	377 Cycles
99-12-52	Inspect in-tank fuel boost pump wire bundles		63374		30000	H	93374	25227 Hours
99-23-13	Inspect the forward and aft frames of the No. 1 cargo door			39840	3000	C	42840	527 Cycles
	Insp. web, inner/outer chords, bear strap, skin of No. 1 cargo door			37246	15000	C	52246	9933 Cycles
2000-02-19	Inspect the wing center section front spar webs	11/30/2000	65971	41255	3000	C	44255	1942 Cycles
2000-14-07	Perform a HFEC insp. of the rear spar web of the wing center section	11/30/2000	65971	41255	3000	C	44255	1942 Cycles

### Open Airworthiness Directives

		Threshold	Due at	Time Remaining
90-06-09	Aging Airplane Structural Modification Program		Refer to the Aging Airplane SMP section of this report for details	
94-05-04	Aging Airplane Structural Modification Program		Refer to the Aging Airplane SMP section of this report for details	
98-11-03	Supplemental Structural Inspection Document (SSID) Items	55000 TAC	55000	TAC 12687 Cycles
99-04-22	Modify the lower skin panels of the fuselage lap joints for cracks		45792	TAC 3479 Cycles
99-18-05	Visual & HFEC insp. of the vertical beam of the aft press bulkhead	40000 cycs from time of mod	68185	TAC 25872 Cycles
2000-02-19	Modify the wing center section front spar webs	60000 TAC	60000	TAC 17687 Cycles
		48 mths from eff. date of AD	3/9/2004	921 Days
2000-05-19	Inspect the forward entry doorway for cracks	60000 TAC	60000	TAC 17687 Cycles
2000-14-07	Inspect to detect cracking in the wing rear spar web	60000 TAC	60000	TAC 17687 Cycles
2001-15-01	Modify the escape slide latch assembly	36 mths from eff. date of AD	8/28/2004	1093 Days



**PHYSICAL SURVEY REPORT  
AMERICAN AIRLINES  
B727-223 ADV  
REG. N859AA S/N 21086**

**AGING AIRPLANE STRUCTURAL MODIFICATION AND INSPECTION PROGRAM**

The service bulletins applicable to this program are recommended inspections or modifications of the manufacturer. Previously, in most cases, accomplishment of any action per service bulletins was optional to the operator. However, in order to ensure the long-term structural integrity of aging airplanes, the industry has recommended actions per specific bulletins and developed a structural modification and inspection program. The FAA has made this program mandatory by issuing the following Airworthiness Directives:

Airworthiness Directive 90-06-09, effective April 17, 1990  
Airworthiness Directive 94-05-04, effective April 21, 1994  
Airworthiness Directive 94-07-08, effective April 28, 1994

Within the program there are service bulletins contained in two (2) different sections, Section 3 and Section 4. Section 3 lists service bulletins for which specific *modifications* are required while Section 4 lists service bulletins for which only specific *inspections* are required.

Specifically, Airworthiness Directive 90-06-09 and 94-05-04 relate to Section 3. The philosophy behind the development of Section 3 of the Aging Airplane Structural Modification and Inspection Program is to accomplish terminating actions (modifications) instead of relying solely upon inspections to maintain airworthiness. The schedule by which the Section 3 modifications are accomplished varies depending on the aircraft's age, cycles, and individual applicability to each service bulletin. The initial recommendations of the industry Structures Task Group are reflected in the requirements of Airworthiness Directive 90-06-09. Subsequently, following four (4) years of additional experience, this group put forward additional requirements that are mandated by Airworthiness Directive 94-05-04.

## **AGING AIRPLANE STRUCTURAL MODIFICATION AND INSPECTION PROGRAM**

*continued*

Airworthiness Directive 94-07-08 relates to Section 4. Service bulletins listed in Section 4 had insufficient history of in-service failures to warrant placement in Section 3 and, therefore, the Structures Task Group recommended repetitive structural *inspections* to ensure the integrity of the 727 fleet. Recently, this has become mandatory by the release of Airworthiness Directive 94-07-08.

The maximum allowable initial inspection of these structural areas is required based on the inspection threshold specified in the program. If no threshold is specified, the inspections are required by July 28, 1995 or by the corresponding service bulletin phase-in period in accumulated flight cycles or time-in-service measured from July 28, 1995.

For the status of service bulletins mandated by airworthiness directive 94-07-08, refer to the AD Summary section of this report.

**AGING AIRPLANE  
STRUCTURAL MODIFICATION PROGRAM AD 90-06-09 AND 94-05-04  
B727-223 ADV**

**REG. No. N859AA S/N 21086 L/N 1248 Variable No. QA158**

*Effective: August 31, 2001 TAT: 68,147 TAC: 42,313*

Service Bulletin	Subject	Threshold	Modification Status
<b>AD 90-06-09</b>			
32-258	Main landing gear drag strut upper attach fuse bolt inspection and replacement	Modify by 12-31-92	Terminated on 3-8-92 per AAL EO H4157XX
52-022	Galley, forward entry and cargo door cut-out revision	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
52-028	Body door stop fitting replacement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
52-079	Main cargo door skin inspection and modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
52-094	E & E compartment door inspection, repair, and modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
52-102	Forward and aft cargo door upper and lower stop fitting inspection and replacement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
52-104	No. 3 cargo door stop fitting inspection and replacement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
52-109	Forward and aft lower cargo door stop fitting inspection and replacement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
52-124	Main cargo door cam support fitting inspection and replacement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
52-126	Aft cargo door frame inspection and modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-041	Installation of stringer to body frame tie clips – body crown	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-045	Forward and aft cargo door body frame door stop cut-out reinforcement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-054	Mid-cabin galley door body skin hinge cut-out reinforcement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable

**AGING AIRPLANE  
STRUCTURAL MODIFICATION PROGRAM AD 90-06-09 AND 94-05-04  
B727-223 ADV  
REG. No. N859AA S/N 21086 L/N 1248 Variable No. QA158**

*Effective: August 31, 2001 TAT: 68,147 TAC: 42,313*

Service Bulletin	Subject	Threshold	Modification Status
53-055	Body station 1183 bulkhead reinforcement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Terminated on 3-8-92 at TAC 28,185 per AAL EO H3058CX
53-059	Stringer to body frame attachment reinforcement – forward lower body	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-061	Body station 1183 pressure bulkhead vertical I-beam reinforcement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-062	Body station 740 bulkhead forging inspection, modification, and repair	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-063	Galley and service door lower corner threshold re-work	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-065	Nose gear wheel well forward bulkhead and sidewall reinforcement strap installation	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Open
53-068	Forward cargo compartment sidewall frame reinforcement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-072	Body skin longitudinal lap joint corrosion inspection and modification	See AD 91-06-06	SB was deleted per Revision F. Requirements are addressed by AD 91-06-06.
53-080	Stringer replacement, left body station 259.5-303.9 and clip and radius filler installation right body station 294.5	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-082	Upper body skin bonded tear strap inspection and modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-084	Body skin bonded circumferential doubler inspection and modification, stations 259, 360, 441, and 1080	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-085	Body skin bonded doubler and tripler inspection and modification	Modify by 20 years of airframe age or by 4-17-94, whichever occurs later	Not Applicable
53-086	Control cabin E-F window post inspection and modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable

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STRUCTURAL MODIFICATION PROGRAM AD 90-06-09 AND 94-05-04  
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REG. No. N859AA S/N 21086 L/N 1248 Variable No. QA158**

*Effective: August 31, 2001 TAT: 68,147 TAC: 42,313*

Service Bulletin	Subject	Threshold	Modification Status
53-089	Body station 950 bulkhead web replacement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-092	Forward lower body fatigue life improvement – body stations 277 to 720	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-109	Body crown skin circumferential joint bonded doubler inspection, repair, and preventative modification – BS 1080	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-116	Body station 870 – stringer 18A joint inspection, repair, modification, and body fitting replacement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-124	Main wheel well pressure floor inspection and repair	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Open
53-126	Body station 950 bulkhead fitting modification, repair, and replacement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-128	Fuselage forward lower body corrosion inspection and repair at stringer 27, 28, and BBL 0 doubler	Modify by 20 years of airframe age or 4-17-94, whichever occurs later	Not Applicable
53-134	Inspection and reinforcement of BS 910 floor beam	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-136	Forward galley doorway reinforcing doubler inspection and re-work	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-144	Lower body skin inspection and repair, BS 360 to 481	Modify by 20 years of airframe age or by 4-17-94, whichever occurs later	Not Applicable
53-145	Nose wheel well forward bulkhead sidewall and top panel reinforcement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Terminated on 3-8-92 per AAL EO H4087CK
53-147	BS 940 floor beam inspection, repair, and modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-149	Main wheel well pressure floor inspection, modification, and repair	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Terminated on 3-8-92 per AAL EO H4097AX

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*Effective: August 31, 2001 TAT: 68,147 TAC: 42,313*

Service Bulletin	Subject	Threshold	Modification Status
53-153	Forward entry doorway forward frame inspection and reinforcement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Open
53-159	Aft lower body bonded skin panel inspection, repair, or replacement	Modify by 20 years of airframe age or by 4-17-94, whichever occurs later	Not Applicable
53-163	Body station 950 fitting inspection at water line 210	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-166	Fuselage – forward entry doorway structure at lower sill – inspection, modification, and repair	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-168	Fuselage – mid galley doorway skin inspection, repair, and preventative modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-169	Fuselage - No. 3 cargo doorway – forward frame crack inspection, repair, and modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-171	Fuselage – station 1183 bulkhead web crack repair and preventative modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Open
53-173	Fuselage – aft pressure bulkhead vertical beam, body station 1183 inspection, repair, and modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-175	Fuselage – station 1183 bulkhead, buttock line 8, vertical beam and web inspection, modification, and repair	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Open
53-176	Fuselage – skin panel inspection, modification, and repair, BS 950C to BS 1010 between stringers 14L and 26L	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-178	Fuselage – BS 1183 – stringer 3A tension bolt replacement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Open
53-181	Fuselage – BS 1183 vertical beam BL 46.93 – inspection, repair, and modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Open
53-182	Fuselage – BS 1183 bulkhead BL 26.83 vertical beam inspection, repair, and modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Open

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*Effective: August 31, 2001 TAT: 68,147 TAC: 42,313*

Service Bulletin	Subject	Threshold	Modification Status
53-187	Fuselage – forward cargo door cut-out aft lower corner inspection, modification, and repair	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
53-188	Fuselage – forward galley door cut-out inspection, modification, and repair	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Open
55-048	Fin front spar forging repair and modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
55-056	Fin upper closure rib fittings inspection and replacement	Modify by 20 years of airframe age or by 4-17-94, whichever occurs later	Not Applicable
55-060	Fin front spar terminal fitting inspection and repair	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
55-062	Horizontal stabilizer center section rear spar fitting inspection and repair	Modify by 60,000 cycles or 20 years of airframe age, whichever occurs first or by 4-17-94, whichever occurs later	Not Applicable
55-069	Horizontal stabilizer center section front spar clevis inspection	Modify by 60,000 cycles or 20 years of airframe age, whichever occurs first or by 4-17-94, whichever occurs later	Not Applicable
55-071	Fin tension tie rib attach point re-work	Modify by 20 years of airframe age or by 4-17-94, whichever occurs later	Not Applicable – SB applies only to Group 1 airplanes
55-073	Horizontal stabilizer jackscrew gimbal support fitting inspection	Modify by 20 years of airframe age or by 4-17-94, whichever occurs later	Not Applicable
57-103	Wing rear spar terminal fitting inspection and modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
57-107	Wing center section front spar web inspection and modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
57-112	Wings – rib upper chord at BL 70.5 inspection, re-work, and repair	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Open
57-113	Wing center section upper stiffener modification and repair	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable

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REG. No. N859AA S/N 21086 L/N 1248 Variable No. QA158**

*Effective: August 31, 2001 TAT: 68,147 TAC: 42,313*

Service Bulletin	Subject	Threshold	Modification Status
57-127	Inspection and replacement of wing outboard ribs	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
57-130	Wing leading edge slat actuator support structure inspection and modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
57-134	Slat track-to-slat attach bolt replacement	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Open
57-159	Outer wing upper stringer inspection, modification, and repair	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Open
57-171	Wings – leading edge slat downstop modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Open
57-172	Wings – flight surface slat track roller bearing bolt inspection and modification	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Open
57-175	Wing rear spar terminal fitting inspection, modification, and repair	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Not Applicable
57-178	Wings – inboard trailing edge flaps inboard track – track modification and repair	Modify by 60,000 cycles or 4-17-94, whichever occurs later	Terminated on 3-8-92 at TAC 28,185 per AAL EO H4090BX
78-086	Lightweight thrust reverser inspection and actuator assembly and clamshell door crank arm re-work	Modify by 12-31-92	Not Applicable
<b>AD 94-05-04</b>			
32-340	Landing gear – main landing gear doors and flap tracks – door hinge and inboard track modification	Modify by 60,000 cycles or 4-21-98, whichever occurs later	Open
53-089	Station 950 bulkhead web replacement	Modify by 60,000 cycles or 4-21-98, whichever occurs later	Not Applicable
53-186	Fuselage – main frame – forward entry doorway fuselage skin crack	Modify by 60,000 cycles or 4-21-98, whichever occurs later	Open

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STRUCTURAL MODIFICATION PROGRAM AD 90-06-09 AND 94-05-04  
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*Effective: August 31, 2001 TAT: 68,147 TAC: 42,313*

Service Bulletin	Subject	Threshold	Modification Status
53-200	Fuselage – longitudinal lap joint lower skin at stringer 14 from BS 441-to 719 modification	Modify by 60,000 cycles or 4-21-98, whichever occurs later	Not Applicable
53-202	Fuselage – aft pressure bulkhead BS 1183 BBL 17.8 vertical beam modification	Modify by 60,000 cycles or 4-21-98, whichever occurs later	Open
53-203	Fuselage – forward lower body skin corrosion inspection and repair	Modify by 20 years of airframe age or by 4-21-98, whichever occurs later	Terminated on 4-12-90 per AAL EO H4129XX
53-204	Fuselage – skin at Stringer 1 from BS 1090 thru 1110 – crack inspection and repair	Modify by 60,000 cycles or 4-21-98, whichever occurs later	Open
54-017	Nacelles / pylons – engine attach fittings – engine No. 1 and 3 aft mount support fittings inspection and replacement	Modify by 60,000 cycles or 4-21-98, whichever occurs later	Open
57-130	Wing leading edge slat actuator support structure modification	Modify by 60,000 cycles or 4-21-98, whichever occurs later	Open
57-177	Wing – front spar center section web modification	Modify by 60,000 cycles or 4-21-98, whichever occurs later	Open
57-180	Landing gear – main gear doors and flap tracks – door hinge and inboard track inspection / modification	Modify by 60,000 cycles or 4-21-98, whichever occurs later	Open

*This report lists all service bulletins currently required by Airworthiness Directive 90-06-09, amendment 39-6488 and Airworthiness Directive 94-05-04, amendment 39-8842.*

*Service bulletin 727-53-198 was added to Section 3 of the Boeing Document D6-54860 revision F dated 1/9/92. The Boeing document recommends structural modification incorporation prior to 60,000 cycles.*



**PHYSICAL SURVEY REPORT  
AMERICAN AIRLINES  
B727-223 ADV  
REG. N859AA S/N 21086**

**Aging Airplane Corrosion Prevention and Control Program**

The B727 Corrosion Prevention and Control Program is required by Airworthiness Directive 90-25-03 and requires the accomplishment of inspections of specific airplane structure. These inspections are required to be performed repetitively and commence upon reaching a specific airplane age for each inspection area.

Please refer to our Corrosion Prevention and Control Program Accomplishment Record prepared to show which tasks have been accomplished to date, their re-inspection requirements, and the latest date in which the first application of the remaining tasks must be accomplished.



**PRO-TECH ADVISORS, INC.**  
**CORROSION PREVENTION AND CONTROL PROGRAM**  
**TASK ACCOMPLISHMENT RECORD**

*B727-223 ADV Reg. No.: N859AA S/N 21086 Line No.: 1248 DOM: February 15, 1977*

*As of: 8/31/2001*

<b>Taskcard</b>	<b>Part</b>	<b>Airplane Area</b>	<b>"I"</b>	<b>"R"</b>	<b>Last Accomplished</b>	<b>Next Due</b>	<b>Days Remaining</b>
C32-131-01	1 of 1	Landing gear - nose gear	See Notes	10	12/9/1996	12/7/2006	1924
C32-135-01	1 of 2	Landing gear - main gear left	See Notes	10	12/10/1996	12/8/2006	1925
	2 of 2	Landing gear - main gear right	See Notes	10	12/9/1996	12/7/2006	1924
C53-100-01	1 of 6	Fuselage - exterior surface, nose landing bay	6	1.5	11/11/2000	5/12/2002	254
	2 of 6	Fuselage - exterior surface, left main landing gear bay	6	1.5	11/11/2000	5/12/2002	254
	3 of 6	Fuselage - exterior surface, right main landing gear bay	6	1.5	11/11/2000	5/12/2002	254
	4 of 6	Fuselage - exterior surface, lower half BS 178 to 1183	6	1.5	11/11/2000	5/12/2002	254
	5 of 6	Fuselage - exterior surface, upper half BS 178 to 1183	6	1.5	11/11/2000	5/12/2002	254
	6 of 6	Fuselage - exterior surface, section 48 BS 1183 to 1464	6	1.5	11/11/2000	5/12/2002	254
C53-100-02	1 of 1	Fuselage - exterior surface, lower body skin panels BS 360 to 481	6	1.5	N/A	N/A	N/A
C53-100-03	1 of 1	Fuselage - exterior surface, aft lower body bonded skin panels BS 950 to 1183	6	1.5	N/A	N/A	N/A
C53-100-04	1 of 1	Fuselage - exterior surface, circumferential skin butt joint at BS 521	6	1.5	N/A	N/A	N/A
C53-100-05	1 of 4	Fuselage - exterior surface, left wing rear spar to body fitting and bottle pin	10	5	12/9/1996	12/8/2001	99
	2 of 4	Fuselage - exterior surface, right wing rear spar to body fitting and bottle pin	10	5	12/9/1996	12/8/2001	99

As of: 8/31/2001

<b>Taskcard</b>	<b>Part</b>	<b>Airplane Area</b>	<b>"I"</b>	<b>"R"</b>	<b>Last Accomplished</b>	<b>Next Due</b>	<b>Days Remaining</b>
	3 of 4	Fuselage - exterior surface, left wing rear spar to body fitting and bottle pin	10	10	12/9/1996	12/7/2006	1924
	4 of 4	Fuselage - exterior surface, right wing rear spar to body fitting and bottle pin	10	10	12/9/1996	12/7/2006	1924
C53-100-06	1 of 1	Fuselage - exterior surface, emergency escape hatch exterior skin and edge frames	6	1.5	11/11/2000	5/12/2002	254
C53-111-01	1 of 3	Fuselage - lower lobe, interior BS 178 to 480, except bilge	6	6	12/9/1996	12/8/2002	464
	2 of 3	Fuselage - lower lobe, interior BS 480 to 740, except bilge	6	6	12/9/1996	12/8/2002	464
	3 of 3	Fuselage - lower lobe, interior BS 950 to 1183, except bilge	6	6	12/9/1996	12/8/2002	464
C53-111-02	1 of 2	Fuselage - lower lobe, forward cargo door interior	6	6	12/9/1996	12/8/2002	464
	2 of 2	Fuselage - lower lobe, aft cargo door interior	6	6	12/9/1996	12/8/2002	464
C53-111-03	1 of 2	Fuselage - lower lobe, interior - except bilge - skin and horizontal walkway beam	6	1.5	11/11/2000	5/12/2002	254
	2 of 2	Fuselage - lower lobe, interior - except bilge - skin and horizontal walkway beam	6	3	11/17/1998	11/16/2001	77
C53-111-04	1 of 1	Fuselage - lower lobe, interior wing center section, lower portion of front spar web	See Notes	See Notes	3/8/1994	See Notes	See Notes
C53-113-01	1 of 2	Fuselage - bilge interior BS 480 to 740	6	3	11/17/1998	11/16/2001	77
	2 of 2	Fuselage - bilge interior BS 950 to 1183	6	3	11/17/1998	11/16/2001	77
C53-113-02	1 of 1	Fuselage - bilge interior, aft lower bonded skin BS 950 to 1183 from S27L to S27R	6	3	N/A	N/A	N/A
C53-132-01	1 of 2	Fuselage - left under wing to body fairings and air conditioning bay access door	6	6	12/9/1996	12/8/2002	464
	2 of 2	Fuselage - right under wing to body fairings and air conditioning bay access door	6	6	12/9/1996	12/8/2002	464

As of: 8/31/2001

<b>Taskcard</b>	<b>Part</b>	<b>Airplane Area</b>	<b>"I"</b>	<b>"R"</b>	<b>Last Accomplished</b>	<b>Next Due</b>	<b>Days Remaining</b>
C53-132-02	1 of 2	Fuselage - wing center section front and rear spar lower chords and webs	6	4	N/A	N/A	N/A
	2 of 2	Fuselage - wing center section front and rear spar lower chords and webs	6	4	11/11/2000	11/10/2004	1167
C53-132-03	1 of 4	Left wing - front spar wing to body area	10	5	12/9/1996	12/8/2001	99
	2 of 4	Right wing - front spar wing to body area	10	5	12/9/1996	12/8/2001	99
	3 of 4	Left wing - front spar wing to body fitting and bottle pin	10	10	12/9/1996	12/7/2006	1924
	4 of 4	Right wing - front spar wing to body fitting and bottle pin	10	10	12/9/1996	12/7/2006	1924
C53-137-01	1 of 1	Fuselage - section 48 interior BS 1183 to 1342	10	5	12/9/1996	12/8/2001	99
C53-221-01	1 of 1	Fuselage - flight crew compartment interior	10	8	12/9/1996	12/7/2004	1194
C53-224-01	1 of 3	Fuselage - upper lobe interior including floor structure BS 304 to 740	10	8	12/9/1996	12/7/2004	1194
	2 of 3	Fuselage - upper lobe interior including floor structure BS 740 to 950	10	8	12/9/1996	12/7/2004	1194
	3 of 3	Fuselage - upper lobe interior including floor structure BS 950 to 1183	10	8	12/9/1996	12/7/2004	1194
C53-224-02	1 of 1	Fuselage - interior upper lobe BS 521	10	8	N/A	N/A	N/A
C53-224-03	1 of 2	Fuselage - interior area under galleys and lavatories	10	2	11/3/1999	11/2/2001	63
	2 of 2	Fuselage - interior area under galleys and lavatories	10	4	11/11/2000	11/10/2004	1167
C53-224-04	1 of 1	Fuselage - interior floor structure and shear web, BS 1130 - 1183	8	4	11/11/2000	11/10/2004	1167
C53-224-05	1 of 1	Fuselage - upper lobe interior, wing center section upper skin chords and webs	8	4	11/11/2000	11/10/2004	1167
C53-224-06	1 of 1	Fuselage - interior main deck entry and service door cutouts, lower sill	8	4	11/11/2000	11/10/2004	1167

As of: 8/31/2001

Taskcard	Part	Airplane Area	"I"	"R"	Last		Days Remaining
					Accomplished	Next Due	
C53-224-07	1 of 1	Fuselage - interior upper lobe, emergency exit cutouts, lower sill	8	4	11/11/2000	11/10/2004	1167
C53-224-08	1 of 1	Fuselage - interior upper lobe, BS 1176.9 chord	8	4	11/11/2000	11/10/2004	1167
C54-451-01	1 of 6	No.1 Powerplant, strut, and engine mounts	5	2	11/3/1999	11/2/2001	63
	2 of 6	No.2 Powerplant, strut, and engine mounts	5	2	11/3/1999	11/2/2001	63
	3 of 6	No.3 Powerplant, strut, and engine mounts	5	2	11/3/1999	11/2/2001	63
	4 of 6	No.1 Powerplant, strut, and engine mounts	Engine Removal	Engine Removal	Accomplish at each engine removal.		
	5 of 6	No.2 Powerplant, strut, and engine mounts	Engine Removal	Engine Removal	Accomplish at each engine removal.		
	6 of 6	No.3 Powerplant, strut, and engine mounts	Engine Removal	Engine Removal	Accomplish at each engine removal.		
C54-451-02	1 of 1	Center engine inlet duct & S-ducts	10	8	12/9/1996	12/7/2004	1194
C55-300-01	1 of 1	Vertical stabilizer - exterior surface	10	2	11/3/1999	11/2/2001	63
C55-300-10	1 of 2	Left horizontal stabilizer - exterior surface	10	2	11/3/1999	11/2/2001	63
	2 of 2	Right horizontal stabilizer - exterior surface	10	2	11/3/1999	11/2/2001	63
C55-391-01	1 of 2	Left horizontal stabilizer - leading edge cavity interior	10	8	12/9/1996	12/7/2004	1194
	2 of 2	Right horizontal stabilizer - leading edge cavity interior	10	8	12/9/1996	12/7/2004	1194
C55-391-10	1 of 2	Left horizontal stabilizer - main box interior	10	8	12/9/1996	12/7/2004	1194
	2 of 2	Right horizontal stabilizer - main box interior	10	8	12/9/1996	12/7/2004	1194
C55-391-20	1 of 2	Left horizontal stabilizer - trailing edge cavity interior	10	4	11/11/2000	11/10/2004	1167
	2 of 2	Right horizontal stabilizer - trailing edge cavity interior	10	4	11/11/2000	11/10/2004	1167
C55-391-30	1 of 1	Horizontal stabilizer - center section and support structure	10	5	12/9/1996	12/8/2001	99
C55-395-01	1 of 1	Vertical stabilizer - leading edge cavity interior	10	8	12/9/1996	12/7/2004	1194

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<b>Taskcard</b>	<b>Part</b>	<b>Airplane Area</b>	<b>"I"</b>	<b>"R"</b>	<b>Last Accomplished</b>	<b>Next Due</b>	<b>Days Remaining</b>
C55-395-10	1 of 1	Vertical stabilizer - main box interior	10	8	12/9/1996	12/7/2004	1194
C55-395-11	1 of 1	Vertical stabilizer - interior rear spar at BS 1342 bulkhead	10	5	12/9/1996	12/8/2001	99
C55-395-20	1 of 1	Vertical stabilizer - trailing edge cavity interior	10	4	11/11/2000	11/10/2004	1167
C57-174-01	1 of 1	Wing - center section interior	10	8	12/9/1996	12/7/2004	1194
C57-500-01	1 of 2	Left wing - outboard exterior	10	5	12/9/1996	12/8/2001	99
	2 of 2	Right wing - outboard exterior	10	5	12/9/1996	12/8/2001	99
C57-500-02	1 of 2	Left wing - outboard exterior, lower skin around flap track attach points	10	3	11/17/1998	11/16/2001	77
	2 of 2	Right wing - outboard exterior, lower skin around flap track attach points	10	3	11/17/1998	11/16/2001	77
C57-562-01	1 of 2	Left wing - leading edge cavity interior	10	5	12/9/1996	12/8/2001	99
	2 of 2	Right wing - leading edge cavity interior	10	5	12/9/1996	12/8/2001	99
C57-562-02	1 of 4	Left wing - leading edge cavity interior	10	5	N/A	N/A	N/A
	2 of 4	Right wing - leading edge cavity interior	10	5	N/A	N/A	N/A
	3 of 4	Left wing - leading edge cavity interior	10	5	12/9/1996	12/8/2001	99
	4 of 4	Right wing - leading edge cavity interior	10	5	12/9/1996	12/8/2001	99
C57-571-01	1 of 2	Left wing - outboard main box interior	10	10	12/9/1996	12/7/2006	1924
	2 of 2	Right wing - outboard main box interior	10	10	12/9/1996	12/7/2006	1924
C57-581-01	1 of 2	Left wing - trailing edge cavity interior, flaps and flap tracks	10	5	12/9/1996	12/8/2001	99
	2 of 2	Right wing - trailing edge cavity interior, flaps and flap tracks	10	5	12/9/1996	12/8/2001	99
C57-581-02	1 of 4	Left wing - trailing edge cavity interior - rear spar chords	10	5	N/A	N/A	N/A
	2 of 4	Right wing - trailing edge cavity interior - rear spar chords	10	5	N/A	N/A	N/A

As of: 8/31/2001

<b>Taskcard</b>	<b>Part</b>	<b>Airplane Area</b>	<b>"I"</b>	<b>"R"</b>	<b>Last Accomplished</b>	<b>Next Due</b>	<b>Days Remaining</b>
	3 of 4	Left wing - trailing edge cavity interior - rear spar chords	10	5	12/9/1996	12/8/2001	99
	4 of 4	Right wing - trailing edge cavity interior - rear spar chords	10	5	12/9/1996	12/8/2001	99
C57-581-03	1 of 4	Left wing - trailing edge cavity interior - rear spar chords	8	2	N/A	N/A	N/A
	2 of 4	Right wing - trailing edge cavity interior - rear spar chords	8	2	N/A	N/A	N/A
	3 of 4	Left wing - trailing edge cavity interior - rear spar chords	8	2	11/3/1999	11/2/2001	63
	4 of 4	Right wing - trailing edge cavity interior - rear spar chords	8	2	11/3/1999	11/2/2001	63
C57-581-04	1 of 4	Left wing - trailing edge cavity, flap track carriages	10	10	12/9/1996	12/7/2006	1924
	2 of 4	Right wing - trailing edge cavity, flap track carriages	10	10	12/9/1996	12/7/2006	1924
	3 of 4	Left wing - trailing edge cavity, flap track carriages	10	10	12/9/1996	12/7/2006	1924
	4 of 4	Right wing - trailing edge cavity, flap track carriages	10	10	12/9/1996	12/7/2006	1924
C57-581-05	1 of 4	Left wing - trailing edge cavity interior, flap track carriage support fittings	10	10	12/9/1996	12/7/2006	1924
	2 of 4	Right wing - trailing edge cavity interior, flap track carriage support fittings	10	10	12/9/1996	12/7/2006	1924
	3 of 4	Left wing - trailing edge cavity interior, flap track carriage support fittings	10	10	12/9/1996	12/7/2006	1924
	4 of 4	Right wing - trailing edge cavity interior, flap track carriage support fittings	10	10	12/9/1996	12/7/2006	1924
C57-581-06	1 of 2	Flap tracks attach fittings	10	10	12/9/1996	12/7/2006	1924
	2 of 2	Flap tracks attach fittings	10	10	12/9/1996	12/7/2006	1924
C57-581-07	1 of 2	Flap tracks at main landing gear beam attach point	10	10	12/9/1996	12/7/2006	1924
	2 of 2	Flap tracks at main landing gear beam attach point	10	10	12/9/1996	12/7/2006	1924

As of: 8/31/2001

<b>Taskcard</b>	<b>Part</b>	<b>Airplane Area</b>	<b>"I"</b>	<b>"R"</b>	<b>Last Accomplished</b>	<b>Next Due</b>	<b>Days Remaining</b>
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Notes Below are selected notes from Revision B of D6-54929. Please refer to the document for all applicable notes.

The first application of the basic task on affected airplanes (those that have reached "I" years of age) must be accomplished at the implementation rate of one airplane per year for each airplane area defined in the baseline program.

Landing gear tasks C32-131-01 and C32-135-01 must be accomplished prior to 12/03/97 (10 years since last overhaul) to comply with the phase-in requirements as outlined in revision B of D6-54929.

Basic task C53-100-05 requires inspection with bottle pins removed at a repeat interval of 10 years.

Basic task C53-111-03 requires a repeat interval of 1.5 years for airplanes L/N 1-1544 without modification per SB 53-157. Repeat interval of 3 years after modification for airplanes L/N 1545 and on.

Basic task C53-111-04 requires visual inspection and accomplishment of terminating action per SB 57-146 during first access for task C53-111-01. Task C53-111-04 is no longer required after completing the SB requirements. Ongoing corrosion control of the area is provided by task C53-111-01.

Basic task C53-132-03 requires inspection with bottle pins removed at repeat intervals of 10 years.

Basic task C53-224-03 requires repeat interval of 2 years without galley / lavatory removal. Repeat interval of 4 years with galley / lavatory removal.



**JT8D-9A**  
**LIFE LIMITED PART SUMMARY**  
**S/N 665457**

<b>Total Engine Hours:</b>	76654	<b>TSLSV:</b>	8473 * See note
<b>Total Engine Cycles:</b>	50151	<b>CSLSV:</b>	4435 * See note
<b>As of:</b>	8/29/2001		

Stage	Part Number	Serial Number	Total Hours	Total Cycles	Hour Limit	Cycle Limit	Hours Remaining	Cycles Remaining
<b>Low Pressure Compressor</b>								
C1 DISC	817401	B111AA0226	21638	10944	N/A	20000	N/A	9056
C2 DISC	745902	BBDUAN4465	8563	4486	16000	19000	7437	14514
<b>C3 DISC</b>	<b>799773</b>	<b>R39253</b>	<b>29966</b>	<b>17504</b>	<b>30000</b>	<b>20000</b>	<b>34</b>	<b>2496</b>
<b>C4 DISC</b>	<b>799504</b>	<b>R23942</b>	<b>29966</b>	<b>17504</b>	<b>30000</b>	<b>20000</b>	<b>34</b>	<b>2496</b>
<b>C5 DISC</b>	<b>713105</b>	<b>R47904</b>	<b>27217</b>	<b>15425</b>	<b>30000</b>	<b>20000</b>	<b>2783</b>	<b>4575</b>
<b>C6 DISC</b>	<b>745706</b>	<b>R53266</b>	<b>27665</b>	<b>15777</b>	<b>30000</b>	<b>20000</b>	<b>2335</b>	<b>4223</b>
<b>High Pressure Compressor</b>								
<b>C7 DISC</b>	<b>774407</b>	<b>R57601</b>	<b>29966</b>	<b>17504</b>	<b>30000</b>	<b>20000</b>	<b>34</b>	<b>2496</b>
<b>C8 DISC</b>	<b>748608</b>	<b>R46508</b>	<b>29966</b>	<b>17504</b>	<b>30000</b>	<b>20000</b>	<b>34</b>	<b>2496</b>
C9 DISC	701509	NENCAH2427	8473	4435	30000	20000	21527	15565
C10 DISC	772510	AH3998	18172	9651	30000	20000	11828	10349
<b>C11 DISC</b>	<b>772511</b>	<b>R45914</b>	<b>29966</b>	<b>17504</b>	<b>30000</b>	<b>20000</b>	<b>34</b>	<b>2496</b>
C12 DISC	798512	BENCAN1645	8563	4486	30000	20000	21437	15514
<b>C13 DISC</b>	<b>5003613-01</b>	<b>R47842</b>	<b>29966</b>	<b>17504</b>	<b>30000</b>	<b>20000</b>	<b>34</b>	<b>2496</b>
<b>High Pressure Turbine</b>								
<b>T1 DISC</b>	<b>587501</b>	<b>P68493</b>	<b>29290</b>	<b>18003</b>	<b>30000</b>	<b>20000</b>	<b>710</b>	<b>1997</b>
<b>Low Pressure Turbine</b>								
T2 DISC	802522	R90586	8563	4486	30000	16000	21437	11514
T3 DISC	618703	BLDLBW9152	8563	4486	30000	16000	21437	11514
T4 DISC	769104	BLDLBX9313	8563	4486	30000	20000	21437	15514

First Hour Limit - 34 C3, C4, C7, C8, C11, C13 DISCS  
First Cycle Limit - 1997 T1 DISC

*Note: This engine was removed on August 29, 2001 from the number 3 position on American Airlines aircraft number 720 and is currently in the shop due to time expiration. As reported by American Airlines, AD 98-12-07 (SB 6038) is next due on July 10, 2004, or at next access, if high utilization.*

*Information provided by American indicates all discs listed above in bold are to be replaced during the shop visit. Engine build level to be 4,400 hours / 2,200 cycles. Refer to the attached Engine Bill of Work provided by American for additional details.*



\* ENGINE BILL OF WORK \*  
\* (RACK NO) \*  
\* S79K \*

PRELIMINARY  
FINAL

|X|

PAGE 2 OF 3

ENG2113 TYPE: JTSB-9ATE: 52

WORK ORDER: N/A ENG S/N: 665457 A/C :720 POS:3 DATE OFF: 05/22/2001

REASON RMVD: TIME STA: DFW TSI: 4293 TSV: 8564 TPT: 76654

98C N1 COLD MODZ070 S/N K5457C TPT:76654 TPC:50151 TSI: 4293CSI: 279

IIN	OFF P/N	OFF S/N	SLR	CLR	DISPOSITION
201	845601	AX1640	81437	2014	NO DISC CHANGE REQUIRED
211	817401	B111AA0226	68362	9056	"
202	650232	0704E	81437	85514	"
212	745902	BBDUAN4465	7437	14514	"

BUILD LEVEL (FANS): HRS 4400 CYC 2000

NOTES:

98C N1 COLD MODZ070 S/N K5457C TPT:76654 TPC:50151 TSI: 4293CSI: 279

IIN	OFF P/N	OFF S/N	SLR	CLR	DISPOSITION
303	799773	R39253	34	2496	DEBLADE, SCRAP DISC
304	799504	R23942	34	2496	DEBLADE, SCRAP DISC
305	713105	R47904	2783	4575	DEBLADE, SCRAP DISC
306	745706	R53266	2335	4223	DEBLADE, SCRAP DISC

BUILD LEVEL (LPC MODULE): HRS 4400 CYC 2200

NOTES:

NOTES:

98H N2 ROTOR MODZ071 S/N K5457H TPT:76654TPC: 50151TSI: 4293CSI: 279

IIN	OFF P/N	OFF S/N	SLR	CLR	DISPOSITION
407	774407 NDT	R57601	34	2496	DEBLADE, SCRAP DISC
408	748608 NDT	R46508	34	2496	DEBLADE, SCRAP DISC
409	701509	NENCAH2427	21527	15565	CONDITION CHECK DISC
410	772510	AH3998	11828	10349	DEBLADE, NDT DISC
411	772511 NDT	R45914	34	2496	DEBLADE, SCRAP DISC
412	798512	BENCAN1645	21437	15514	CONDITION CHECK DISC
413	5003613-01	R47842	34	2496	DEBLADE, SCRAP DISC

BUILD LEVEL HPC MODULE: HRS 4400 CYC 2200

NOTES:

ENGINE BILL OF WORK  
 (RACK NO)  
 579K

PRELIMINARY  
 FINAL

X

ENG2113 TYPE: JT8D-9ATE: 52

WORK ORDER: N/A ENG S/N: 665457 A/C :720 POS:3 DATE OFF: 05/22/2001

REASON RMVD: TIME STA: DFW TSI: 4293 TSV: 8564 TPT: 76654

98H TURBINE MODZ071 S/N K5457H TPT:76654TPC: 50151TSI: 4293CSI: 279

IIN	OFF P/N	OFF S/N	SLR	CLR	DISPOSITION
701	587501	P68493	710	1997	DEBLADE, SCRAP DISC

BUILD LEVEL HPT MODULE: HRS 4400 CYC 2200

NOTES: 840001 8563 HOURS TSN (USED BLADES)

NOTES:

98C TURBINE MODZ070 S/N K5457C TPT:76654 TPC:50151 TSI: 4293CSI: 279

IIN	OFF P/N	OFF S/N	SLR	CLR	DISPOSITION
702	802522	R90586	21437	11514	CONDITION CHECK ASSEMBLY
703	618703	BLDLBW9152	21437	11514	"
704	769104	BLDLBX9313	21437	15514	"
707	673931-003	8W5283	18085	43156	TPT: 71915 CYC: 46844

BUILD LEVEL LPT MODULE: HRS 4400 CYC 2200

NOTES:

INBOUND REINSPECT ALLOWABLE REF:SB 1533 3RD/4TH GOOD FOR 2000 HOURS

IIN	OFF P/N	OFF S/N	TSV	CSV	DISPOSITION
709	774403	BLDLBW9152	8563	4486	CONDITION CHECK
711	629704	BLDLBX9313	8563	4486	CONDITION CHECK

SIGNATURE	DATE	SIGNATURE	DATE
BOW PLANNER: <i>[Signature]</i>	2001	ENGINEERING: <i>[Signature]</i>	MAY 31 2001
Q.A.: <i>[Signature]</i>	2001	PRODUCTION: <i>[Signature]</i>	MAY 31 2001

(RACK NO)  
 \*\*\*\*\*REVISION 1\*\*\*\*\*  
 579K

PRELIMINARY | |  
 FINAL | X |  
 TYPE: JT8D-9A TE: 52

WORK ORDER: N/A ENG S/N: 665457 A/C: 720 POS: 3 DATE OFF: 05/22/01

REASON RMVD: TIME STA: DFW TSI: 4293 TSV: 8564 TPT: 76655  
 CSI: 2279 CSV: 4486 CYC: 50151

WORK INSTRUCTIONS REF: 727 M/M LV EHM/652K 4 BLEED 1A  
 NOTE: DELETE THE REQUIREMENT FOR THE ORIGINAL BOW, RETURN ALL LOGS TO ENGINE RECORDS, WITH EXCEPTION OF THE PRELIMINARY LOG.  
 NOTE: ENGINE WILL BE A FLYOVER DUE TO A/C SALE.

1. ACCOMPLISH AA1842, REPORT ON 1276 FORM AS REQUIRED.
2. ACCOMPLISH A FLYOVER PERIODIC PER BH719402.
3. *Position change engine to a/c 1 Per BH719402.*

SPECIAL ITEM CARDS LISTED BELOW *Kinderson 2/11/07*

SIC HTG/CTG	SIC HTG/CTG	SIC HTG/CTG	SIC HTG/CTG	SIC HTG/CTG
1907=N/A CTG	1908=1437HTG	1910=1202 HTG	1912=N/A	1928=N/A HTG
1929=N/A CTG	1931=N/A CTG	1932=N/A CTG	1933=N/A CTG	1996=527 HTG

COMPONENTS & REMAINING HOURS TO GO.

CON5107 HTG=9873	PUM5039, 6045 HTG=5539	REPLACE IF 1000 HTG OR LESS
GEN6139 HTG=5103	TRA6633  HTG=78603	REPLACE IF 475 HTG OR LESS

SERVICE LIFE REMAINING ON ENGINE= 34 HOURS, IIN= 303

A.D. REQUIREMENTS: (RECORD ACCOMPLISHMENT ON FORM 1276 IF APPLICABLE)

S.#	A.D.	TITLE	P/A	C/W	N/A	LOG	REQ'D	REMARKS
4723	81-08-02	N2 TIE ROD HOLES			X			NOT A SHOP VISIT
5729	87-14-01	2ND FAN BLADES			X			NOT A SHOP VISIT
6110	97-19-14	LPT CONTAINMENT 1			X			NOT A SHOP VISIT
6110	97-19-14	LPT CONTAINMENT 2			X			NOT A SHOP VISIT
6131	97-19-14	BRACKET #6 BEARING			X			NOT A SHOP VISIT
5639	86-09-02	BURNER CANS			X			NOT A SHOP VISIT
6228	96-23-14	OUTER COMB CASE			X			NOT A SHOP VISIT
6230	94-25-07	OUTER COMB CASE			X			NOT A SHOP VISIT
1533	97-19-14	3&4 T BLD INSP.			X			NOT A SHOP VISIT
6104	95-10-10	1ST FAN HUB SHOTPEEN			X			NOT A SHOP VISIT
6038	98-12-07	HPC DISC CORROSION			X			NOT A SHOP VISIT
6274	97-19-12	4TH LPT DISC INSP			X			NOT A SHOP VISIT

PROD. A.D. REQ'D SIGNATURE *Ken Anderson* DATE JUN 11 2001

Q.A. A.D. REQ'D SIGNATURE *Ken Anderson* DATE JUN 11 2001

LOGS REQUIRED: FLYOVER, *Position Change*

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
 BOW PLANNER: *Ken Anderson* ENGINEERING: *R.D. Ann*  
 P.A.: *Ken Anderson* PRODUCTION: *Ken Anderson* JUN 11 2001

\* ENGINE BILL OF WORK \*  
\* (RACK NO) \*  
\*\*\*\*\*REVISION 2\*\*\*\*\*  
\* 579K \*

PRELIMINARY  
FINAL

| X |

TYPE: JT8D- 9A

WORK ORDER: N/A ENG S/N: 665457 A/C: 720 POS: 3 DATE OFF: 05/22/01

REASON RMVD: TIME STA: DFW TSI: 4293 TSV: 8564 TPT: 76655  
CSI: 2279 CSV: 4486 CYC: 50151

REFERENCE WORK INSTRUCTIONS: 8D-534, 8D-3715 LV EHM/652K 4 BLEED

- 1. REMOVE/REPLACE N2 GEARBOX S/N: P9557 TSR/TSO: 773, CONDITION CHECK AS REQUIRED, INSTALL DOGLEG GEARBOX S/N: T5062 TSR/TSO: 6683 FROM RACK L63Y.

LOGS REQUIRED: GEARBOX CHANGE/GEARBOX BUILD

\*\*\*\*\*  
SIGNATURE DATE SIGNATURE DATE  
BOW PLANNER: [Signature] JUL 12 2001 ENGINEERING: [Signature] JUL 12 2001  
Q.A.: [Signature] JUL 12 2001 PRODUCTION: [Signature] JUL 12 2001



\* ENGINE BILL OF WORK \*  
 \* (RACK NO) \*  
 \*\*\*\*\*REVISION 3\*\*\*\*\*  
 \* 579K \*  
 \* \*  
 \*\*\*\*\*

PRELIMINARY  
 FINAL | X |

TYPE: JT8D- 9A

WORK ORDER: N/A ENG S/N: 665457 A/C: 720 POS: 3 DATE OFF: 05/22/01

REASON RMVD: TIME STA: DFW TSI: 4293 TSV: 8564 TPT: 76655  
 CSI: 2279 CSV: 4486 CYC: 50151

REFERENCE WORK INSTRUCTIONS: 8D-534, 8D-3715 LV EHM/652K 4 BLEED

1. CORRECT INBOUND ALLOWABLE FOR SB 1533 TO 1500 HOURS INSTEAD OF 2000 HRS.

\*\*\*\*\*  
 SIGNATURE DATE SIGNATURE DATE  
 BOW PLANNER: *[Signature]* SEP 21 2001 ENGINEERING: *[Signature]* SEP 21 2001  
 Q.A.: *[Signature]* SEP 21 2001 PRODUCTION: *[Signature]* SEP 21 2001



**JT8D-9A**  
**LIFE LIMITED PART SUMMARY**  
**S/N 665177**

<b>Total Engine Hours:</b>	76759	<b>TLSLV:</b>	8380
<b>Total Engine Cycles:</b>	49544	<b>CSLSV:</b>	4438
<b>As of:</b>	8/29/2001		

Stage	Part Number	Serial Number	Total Hours	Total Cycles	Hour Limit	Cycle Limit	Hours Remaining	Cycles Remaining
<b>Low Pressure Compressor</b>								
C1 DISC	848001	BBDUAT8927	8380	4438	N/A	20000	N/A	15562
C2 DISC	745902	BBDUAK7474	12754	6551	16000	19000	3246	12449
C3 DISC	799773	R25668	27828	15717	30000	20000	2172	4283
C4 DISC	799504	R23680	27828	15717	30000	20000	2172	4283
C5 DISC	713105	R31794	23859	12669	30000	20000	6141	7331
C6 DISC	745706	R08348	24497	13167	30000	20000	5503	6833
<b>High Pressure Compressor</b>								
C7 DISC	774407	R37442	27475	15811	30000	20000	2525	4189
C8 DISC	748608	R73380	25388	14695	30000	20000	4612	5305
C9 DISC	701509	P97647	29066	17212	30000	20000	934	2788
C10 DISC	772510	R46023	26006	15611	30000	20000	3994	4389
C11 DISC	772511	T22285	19775	10895	30000	20000	10225	9105
C12 DISC	798512	T43176	20874	11736	30000	20000	9126	8264
C13 DISC	5003613-01	R49737	27828	15717	30000	20000	2172	4283
<b>High Pressure Turbine</b>								
T1 DISC	587501	R31610	28696	17288	30000	20000	1304	2712
<b>Low Pressure Turbine</b>								
T2 DISC	802522	R01360	18688	10343	30000	16000	11312	5657
T3 DISC	618703	BLDLBY5475	8380	4438	30000	16000	21620	11562
T4 DISC	769104	BLDLCB2040	8380	4438	30000	20000	21620	15562

First Hour Limit - 934    C9 DISC  
First Cycle Limit - 2712    T1 DISC

*Note: This engine is currently installed in the number 2 position on aircraft registration number N859AA. As reported by American Airlines, AD 98-12-07 (SB 6038) is next due on March 21, 2005, or at next access, if high utilization.*



**JT8D-9A**  
**LIFE LIMITED PART SUMMARY**  
**S/N 666268**

<b>Total Engine Hours:</b>	51609	<b>TSLSV:</b>	6316
<b>Total Engine Cycles:</b>	31574	<b>CSLSV:</b>	3242
<b>As of:</b>	8/29/2001		

Stage	Part Number	Serial Number	Total Hours	Total Cycles	Hour Limit	Cycle Limit	Hours Remaining	Cycles Remaining
<b>Low Pressure Compressor</b>								
C1 DISC	848001	BBDUAN4692	10525	5394	N/A	20000	N/A	14606
C2 DISC	745902	BBDUAN4388	10326	5307	16000	19000	5674	13693
C3 DISC	799773	AJ2762	14027	7474	30000	20000	15973	12526
C4 DISC	799504	S07081	21496	11940	30000	20000	8504	8060
C5 DISC	713105	S09683	19475	10573	30000	20000	10525	9427
C6 DISC	745706	T41302	15207	8094	30000	20000	14793	11906
<b>High Pressure Compressor</b>								
C7 DISC	774407	S36711	21496	11940	30000	20000	8504	8060
C8 DISC	748608	R73092	20235	11608	30000	20000	9765	8392
C9 DISC	815609	BENCAP8513	6316	3242	30000	20000	23684	16758
C10 DISC	815610	BENCAP6822	6316	3242	30000	20000	23684	16758
C11 DISC	815611	BENCAP1443	6316	3242	30000	20000	23684	16758
C12 DISC	815612	BENCAP6068	6316	3242	30000	20000	23684	16758
C13 DISC	5003613-01	P93691	25328	15408	30000	20000	4672	4592
<b>High Pressure Turbine</b>								
T1 DISC	587501	R71857	28267	16444	30000	20000	1733	3556
<b>Low Pressure Turbine</b>								
T2 DISC	802522	R01597	23711	13385	30000	16000	6289	2615
T3 DISC	618703	P37651	18279	10076	30000	16000	11721	5924
T4 DISC	769104	S10247	23711	13385	30000	20000	6289	6615

First Hour Limit - 1733 T1 DISC  
First Cycle Limit - 2615 T2 DISC

*Note: This engine is currently installed in the number 3 position on aircraft registration number N859AA. As reported by American Airlines, AD 98-12-07 (SB 6038) is next due on October 31, 2005, or at next access, if high utilization.*