



AIRCRAFT
MAINTENANCE MANUAL

VOLCANIC ASH - INSPECTION/CHECK

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to do an inspection after the aircraft is submitted to a volcanic ash condition.
- B. A volcanic ash condition occurs when the aircraft:
 - Flight through a cloud of volcanic ash.
 - Makes a landing or takeoff in a volcanic ash fallout condition.
 - Does ground operations (towing, taxiing, parking) in a volcanic ash fallout condition.
- C. Volcanic ash is a highly abrasive material that can corrode the contaminated surfaces.
NOTE: The texture of volcanic ash is almost the same as talcum powder.
- D. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	DESCRIPTION	EFFECTIVITY
05-50-18-200-801-A	VOLCANIC ASH CONDITION	ALL



AIRCRAFT MAINTENANCE MANUAL

TASK 05-50-18-200-801-A

EFFECTIVITY: ALL

2. VOLCANIC ASH CONDITION

A. General

- (1) The inspection procedures described below must be done after the aircraft is submitted to a volcanic ash condition.
- (2) Indications of a volcanic ash condition:
 - (a) A limited view through the windshields and windows.
 - (b) An electrostatic discharge across the windshields.
 - (c) A bright glow in the engine inlets along with subsequent engine shutdown.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM MPP 28-00-00/200	- MAINTENANCE PRACTICES
AMM MPP 49-00-00/200	- MAINTENANCE PRACTICES
AMM MPP 49-02-00/200	- MAINTENANCE PRACTICES
AMM MPP 49-10-01/400	- REMOVAL/INSTALLATION
AMM MPP 49-17-01/400	- REMOVAL/INSTALLATION
AMM MPP 49-31-02/400	- REMOVAL/INSTALLATION
AMM TASK 05-20-02-200-801-A/600	FORWARD FUSELAGE I - RADOME - INTERNAL GENERAL VISUAL INSPECTION
AMM TASK 05-20-82-200-801-A/600	WING ROOT SECTION BETWEEN SPAR I AND SPAR II - EXTERNAL GENERAL VISUAL INSPECTION
AMM TASK 05-20-84-200-801-A/600	WING - EXTERNAL GENERAL VISUAL INSPECTION
AMM TASK 05-20-86-200-801-A/600	WING MIDDLE SECTION BETWEEN SPAR I AND SPAR II - EXTERNAL GENERAL VISUAL INSPECTION
AMM TASK 05-20-88-200-802-A/600	WING TIP SECTION BETWEEN SPAR I AND SPAR II - EXTERNAL GENERAL VISUAL INSPECTION
AMM TASK 05-20-90-200-801-A/600	INBOARD FLAP GROUND SPOILER AND SPEED BRAKE - EXTERNAL GENERAL VISUAL INSPECTION
AMM TASK 05-20-92-200-801-A/600	OUTBOARD FLAP - EXTERNAL GENERAL VISUAL INSPECTION
AMM TASK 05-20-94-200-801-A/600	AILERON - EXTERNAL GENERAL VISUAL INSPECTION
AMM TASK 05-30-28-200-801-A/600	GROUND SPOILER - EXTERNAL GENERAL VISUAL INSPECTION
AMM TASK 05-30-30-200-801-A/600	SPEED BRAKE - EXTERNAL GENERAL VISUAL INSPECTION
AMM TASK 12-11-02-600-802-A/300	FUEL TANK GRAVITY DEFUELING - SERVICING
AMM TASK 12-11-03-600-801-A/300	FUEL TANK DRAINING - SERVICING



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

(Continued)

REFERENCE	DESIGNATION
AMM TASK 12-15-02-600-801-A/300	WATER RESERVOIR - STERILIZATION
AMM TASK 12-22-00-600-801-A/300	LIGHT DIRT - SERVICING
AMM TASK 12-22-00-600-802-A/300	HEAVY DIRT - SERVICING
AMM TASK 12-22-00-600-803-A/300	LANDING GEAR COMPARTMENTS - SERVICING
AMM TASK 12-23-00-600-801-A/300	-
AMM TASK 21-20-00-100-801-A/700	-
AMM TASK 21-20-00-100-802-A/700	-
AMM TASK 21-20-00-700-801-A/500	CONDITIONED AIR DISTRIBUTION SYSTEM - OPERATIONAL CHECK
AMM TASK 21-22-01-000-801-A/400	-
AMM TASK 21-22-01-400-801-A/400	-
AMM TASK 21-23-01-000-801-A/400	-
AMM TASK 21-23-01-400-801-A/400	-
AMM TASK 21-23-03-000-801-A/400	-
AMM TASK 21-23-03-400-801-A/400	-
AMM TASK 21-23-04-100-801-A/700	-
AMM TASK 21-23-04-100-802-A/700	-
AMM TASK 21-23-04-200-801-A/600	-
AMM TASK 21-23-04-200-802-A/600	-
AMM TASK 21-24-01-000-801-A/400	RECIRCULATION FAN - REMOVAL
AMM TASK 21-24-01-400-801-A/400	RECIRCULATION FAN - INSTALLATION
AMM TASK 21-24-02-100-801-A/700	RECIRCULATION SYSTEM - CLEANING
AMM TASK 21-24-02-200-801-A/600	RECIRCULATION SYSTEM - GENERAL VISUAL INSPECTION
AMM TASK 21-25-01-000-801-A/400	RAM AIR VALVE - REMOVAL
AMM TASK 21-25-01-400-801-A/400	RAM AIR VALVE - INSTALLATION
AMM TASK 21-25-01-700-801-A/500	RAM AIR VALVE - OPERATIONAL CHECK
AMM TASK 21-25-02-000-801-A/400	RAM-AIR CHECK VALVE - REMOVAL
AMM TASK 21-25-02-400-801-A/400	RAM-AIR CHECK VALVE - INSTALLATION
AMM TASK 21-26-00-700-801-A/500	ELECTRONIC COMPARTMENT VENTILATION SYSTEM - OPERATIONAL CHECK
AMM TASK 21-26-01-000-801-A/400	SHUTOFF VALVE - REMOVAL
AMM TASK 21-26-01-400-801-A/400	SHUTOFF VALVE - INSTALLATION
AMM TASK 21-26-02-000-801-A/400	FAN - REMOVAL
AMM TASK 21-26-02-400-801-A/400	FAN - INSTALLATION
AMM TASK 21-26-06-000-801-A/400	CHECK VALVE - REMOVAL
AMM TASK 21-26-06-100-801-A/700	CHECK VALVE - CLEANING
AMM TASK 21-26-06-400-801-A/400	CHECK VALVE - INSTALLATION
AMM TASK 21-26-06-600-801-A/300	CHECK VALVE - LUBRICATION



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

(Continued)

REFERENCE	DESIGNATION
AMM TASK 21-26-08-000-801-A/400	EXHAUST HOSES - REMOVAL
AMM TASK 21-26-08-960-801-A/200	EXHAUST HOSES - REPLACE
AMM TASK 21-31-00-700-801-A/500	-
AMM TASK 21-31-00-700-802-A/500	-
AMM TASK 21-31-00-700-804-A/500	-
AMM TASK 21-31-00-700-807-A/500	-
AMM TASK 21-31-03-100-801-A/700	ELECTROPNEUMATIC OUTFLOW VALVE - CLEANING
AMM TASK 21-31-04-100-801-A/700	PNEUMATIC OUTFLOW VALVE - CLEANING
AMM TASK 21-31-08-960-801-A/200	AIR FILTER ELEMENT - REPLACEMENT
AMM TASK 21-31-13-100-801-A/700	STATIC PORT LINES - CLEANING
AMM TASK 21-32-01-700-801-A/500	CABIN-PRESSURE ACQUISITION MODULE - FUNCTIONAL TEST
AMM TASK 21-51-00-700-802-A/500	-
AMM TASK 21-51-00-700-803-A/500	-
AMM TASK 21-51-00-700-805-A/500	-
AMM TASK 21-51-01-000-801-A/400	PACK VALVE - REMOVAL
AMM TASK 21-51-01-400-801-A/400	PACK VALVE - INSTALLATION
AMM TASK 21-51-02-000-801-A/400	DUAL HEAT EXCHANGER - REMOVAL
AMM TASK 21-51-02-400-801-A/400	DUAL HEAT EXCHANGER - INSTALLATION
AMM TASK 21-51-03-000-801-A/400	AIR CYCLE MACHINE (ACM) - REMOVAL
AMM TASK 21-51-03-400-801-A/400	AIR CYCLE MACHINE (ACM) - INSTALLATION
AMM TASK 21-51-04-000-801-A/400	CONDENSER/MIXER - REMOVAL
AMM TASK 21-51-04-400-801-A/400	CONDENSER/MIXER - INSTALLATION
AMM TASK 21-51-05-000-801-A/400	WATER COLLECTOR - REMOVAL
AMM TASK 21-51-05-400-801-A/400	WATER COLLECTOR - INSTALLATION
AMM TASK 21-51-06-000-801-A/400	PACK OVERPRESSURE SWITCH - REMOVAL
AMM TASK 21-51-06-400-801-A/400	PACK OVERPRESSURE SWITCH - INSTALLATION
AMM TASK 21-51-07-000-801-A/400	PACK SETDOWN SWITCH - REMOVAL
AMM TASK 21-51-07-400-801-A/400	PACK SETDOWN SWITCH - INSTALLATION
AMM TASK 21-51-08-000-801-A/400	PACK OVERTEMPERATURE SWITCH - REMOVAL
AMM TASK 21-51-08-400-801-A/400	PACK OVERTEMPERATURE SWITCH - INSTALLATION
AMM TASK 21-51-09-000-801-A/400	PACK DUCT OVERTEMPERATURE SWITCH - REMOVAL
AMM TASK 21-51-13-000-801-A/400	WATER SPRAY NOZZLE - REMOVAL
AMM TASK 21-51-13-100-801-A/700	WATER SPRAY NOZZLE - CLEANING
AMM TASK 21-51-13-200-801-A/600	WATER SPRAY NOZZLES - INSPECTION
AMM TASK 21-51-13-400-801-A/400	WATER SPRAY NOZZLE - INSTALLATION

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REFERENCE	DESIGNATION
AMM TASK 21-60-00-700-801-A/500	TEMPERATURE CONTROL SYSTEM - OPERATIONAL CHECK
AMM TASK 21-60-01-000-801-A/400	DUAL TEMPERATURE CONTROL VALVE - REMOVAL
AMM TASK 21-60-01-400-801-A/400	DUAL TEMPERATURE CONTROL VALVE - INSTALLATION
AMM TASK 21-60-03-000-801-A/400	DUCT TEMPERATURE SENSOR - REMOVAL
AMM TASK 21-60-03-400-801-A/400	DUCT TEMPERATURE SENSOR - INSTALLATION
AMM TASK 23-00-01-000-801-A/400	INTEGRATED COMMUNICATION UNIT - REMOVAL
AMM TASK 23-00-01-400-801-A/400	INTEGRATED COMMUNICATION UNIT - INSTALLATION
AMM TASK 23-12-00-700-805-A/500	VHF - FUNCTIONAL TEST
AMM TASK 24-31-01-000-801-A/400	MAIN GENERATOR - REMOVAL
AMM TASK 24-31-01-400-801-A/400	MAIN GENERATOR - INSTALLATION
AMM TASK 24-34-01-000-801-A/400	APU STARTER/GENERATOR - REMOVAL
AMM TASK 24-34-01-400-801-A/400	APU STARTER GENERATOR - INSTALLATION
AMM TASK 24-35-01-900-801-A/200	BACK-UP BATTERY - RESTORE
AMM TASK 24-35-02-000-801-A/400	BACKUP-BATTERY RELAY BOX - REMOVAL
AMM TASK 24-35-02-400-801-A/400	BACKUP-BATTERY RELAY BOX - INSTALLATION
AMM TASK 24-36-01-900-802-A/200	MAIN BATTERY - RESTORE
AMM TASK 24-36-02-000-801-A/400	MAIN BATTERY 1 RELAY BOX - REMOVAL
AMM TASK 24-36-02-400-801-A/400	MAIN BATTERY 1 RELAY BOX - INSTALLATION
AMM TASK 24-36-03-000-801-A/400	MAIN BATTERY 2 RELAY BOX - REMOVAL
AMM TASK 24-36-03-400-801-A/400	MAIN BATTERY 2 RELAY BOX - INSTALLATION
AMM TASK 26-14-00-700-801-A/500	-
AMM TASK 26-14-00-700-802-A/500	-
AMM TASK 26-14-01-000-801-A/400	LAVATORY SMOKE DETECTOR - REMOVAL
AMM TASK 26-14-01-400-801-A/400	LAVATORY SMOKE DETECTOR - INSTALLATION
AMM TASK 26-15-00-700-801-A/500	-
AMM TASK 26-15-00-700-802-A/500	-
AMM TASK 26-15-00-700-803-A/500	-
AMM TASK 26-15-01-000-801-A/400	-
AMM TASK 26-15-01-000-802-A/400	-
AMM TASK 26-15-01-400-801-A/400	-
AMM TASK 26-15-01-400-802-A/400	-
AMM TASK 26-21-06-200-801-A/600	DISCHARGE PIPING OF ENGINE FIRE EXTINGUISHING SYSTEM - VISUAL INSPECTION
AMM TASK 26-22-04-200-801-A/600	DISCHARGE PIPING OF APU FIRE-EXTINGUISHING SYSTEM - VISUAL INSPECTION



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

(Continued)

REFERENCE	DESIGNATION
AMM TASK 26-23-05-200-801-A/600	DISCHARGE PIPING OF THE BAGGAGE-COMPARTMENT FIRE-EXTINGUISHING SYSTEM - VISUAL INSPECTION
AMM TASK 26-24-00-200-801-A/600	-
AMM TASK 26-24-00-200-803-A/600	PORTABLE FIRE EXTINGUISHERS - VISUAL INSPECTION
AMM TASK 27-11-00-200-801-A/600	AILERON PRIMARY MECHANICAL CONTROL FROM CONTROL WHEEL TO AILERON PCAS CHECKING CABLES PULLEYS NRUS QUADRANTS DISCONNECT SYSTEM AND MECHANICAL LINKS - DETAILED VISUAL INSPECTION
AMM TASK 27-12-01-200-802-A/600	AILERON PCA ROD ENDS/FITTING LUGS FOR INTEGRITY AND GENERAL CONDITION - GENERAL VISUAL INSPECTION
AMM TASK 27-12-03-200-801-A/600	AILERON DAMPER ROD ENDS/FITTING LUGS - INSPECTION
AMM TASK 27-21-01-200-802-A/600	MAIN CONTROL INPUT PATH - GENERAL VISUAL INSPECTION
AMM TASK 27-21-02-200-801-A/600	RUDDER MAIN CONTROL FEEDBACK PATH PCU LINKAGE AND MOUNTING POINTS RUDDER ACTUATOR ATTACHMENTS HINGES AND CONNECTING RODS - DETAILED INSPECTION
AMM TASK 27-22-02-200-801-A/600	RUDDER ACTUATORS - GENERAL VISUAL INSPECTION
AMM TASK 27-31-01-200-801-A/600	ELEVATOR DISCONNECT SYSTEM - GENERAL VISUAL INSPECTION
AMM TASK 27-31-01-200-803-A/600	ELEVATOR CONTROL CABLES - DETAILED VISUAL INSPECTION
AMM TASK 27-31-05-200-801-A/600	SERVO TAB FAIL-SAFE ACTUATION LINK - DETAILED VISUAL INSPECTION
AMM TASK 27-31-05-200-802-A/600	SPRING TAB ATTACHMENT LINK - DETAILED VISUAL INSPECTION
AMM TASK 27-36-01-000-801-A/400	ANGLE OF ATTACK (AOA) SENSOR - REMOVAL
AMM TASK 27-36-01-400-801-A/400	ANGLE OF ATTACK (AOA) SENSOR - INSTALLATION
AMM TASK 27-40-02-200-801-A/600	HORIZONTAL STABILIZER ACTUATOR INTEGRITY AND ATTACHMENTS - DETAILED VISUAL INSPECTION
AMM TASK 27-51-00-200-801-A/600	FLAP MECHANICAL LINE - GENERAL VISUAL INSPECTION
AMM TASK 27-51-15-200-801-A/600	FLAP ROLLERS FOR STRUCTURAL INTEGRITY - DETAILED VISUAL INSPECTION
AMM TASK 27-62-00-200-801-A/600	SPOILER SURFACE HINGE POINTS - GENERAL VISUAL INSPECTION
AMM TASK 28-11-00-300-802-A/700	DECONTAMINATION OF INTEGRAL FUEL TANKS
AMM TASK 28-12-01-700-801-A/500	VENT FLOAT VALVES - OPERATIONAL CHECK
AMM TASK 28-12-03-200-801-A/600	NACA AIR INLET - INSPECTION

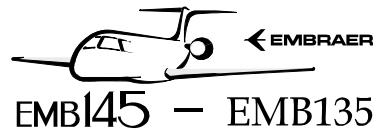
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REFERENCE	DESIGNATION
AMM TASK 28-12-05-200-801-A/600	FLAME ARRESTOR - INSPECTION
AMM TASK 28-21-02-200-801-A/600	EJECTOR PUMP - VISUAL INSPECTION
AMM TASK 28-41-02-000-801-A/400	TANK UNITS - REMOVAL
AMM TASK 29-10-00-200-803-A/600	HYDRAULIC FLUID - ANALYSIS
AMM TASK 29-10-04-000-801-A/400	EMDP - REMOVAL
AMM TASK 29-10-04-400-801-A/400	EMDP - INSTALLATION
AMM TASK 29-10-05-000-801-A/400	RESERVOIR ASSEMBLY - REMOVAL
AMM TASK 30-00-00-700-801-A/500	ANTI-ICING SYSTEM MESSAGES - OPERATIONAL CHECK
AMM TASK 30-00-00-700-802-A/500	ANTI-ICING SYSTEM - OPERATIONAL TEST
AMM TASK 30-10-00-700-801-A/500	AIRFOIL ANTI-ICING SYSTEM - OPERATIONAL TEST
AMM TASK 30-11-00-700-802-A/500	WING THERMAL ANTI-ICING SYSTEM - FUNCTIONAL TEST
AMM TASK 30-11-01-000-801-A/400	WING ANTI-ICING VALVE - REMOVAL
AMM TASK 30-11-01-400-801-A/400	WING ANTI-ICING VALVE - INSTALLATION
AMM TASK 30-11-07-000-801-A/400	PICCOLO TUBES - REMOVAL
AMM TASK 30-11-07-400-801-A/400	PICCOLO TUBES - INSTALLATION
AMM TASK 30-11-08-000-801-A/400	DUCT - REMOVAL
AMM TASK 30-11-08-400-801-A/400	DUCT - INSTALLATION
AMM TASK 30-12-00-700-803-A/500	HORIZONTAL-STABILIZER THERMAL ANTI-ICING SYSTEM - FUNCTIONAL TEST
AMM TASK 30-12-00-700-804-A/500	HORIZONTAL-STABILIZER THERMAL ANTI-ICING SYSTEM DUCTS - LEAKAGE TEST
AMM TASK 30-12-00-700-805-A/500	HORIZONTAL-STABILIZER THERMAL ANTI-ICING SYSTEM VERTICAL DUCTS - LEAKAGE TEST
AMM TASK 30-12-01-000-801-A/400	HORIZONTAL STABILIZER ANTI-ICING VALVE - REMOVAL
AMM TASK 30-12-01-400-801-A/400	HORIZONTAL STABILIZER ANTI-ICING VALVE - INSTALLATION
AMM TASK 30-12-06-000-801-A/400	PICCOLO TUBE - REMOVAL
AMM TASK 30-12-06-400-801-A/400	PICCOLO TUBE - INSTALLATION
AMM TASK 30-12-07-000-801-A/400	DUCTS - REMOVAL
AMM TASK 30-12-07-400-801-A/400	DUCTS - INSTALLATION
AMM TASK 30-21-00-700-802-A/500	ENGINE THERMAL ANTI-ICING SYSTEM - FUNCTIONAL TEST
AMM TASK 30-21-00-700-803-A/500	ENGINE THERMAL ANTI-ICING SYSTEM - OPERATIONAL TEST
AMM TASK 30-21-01-000-801-A/400	ANTI-ICING VALVE - REMOVAL
AMM TASK 30-21-01-400-801-A/400	ANTI-ICING VALVE - INSTALLATION
AMM TASK 30-21-05-000-801-A/400	ENGINE ANTI-ICING DUCT - REMOVAL
AMM TASK 30-21-05-400-801-A/400	ENGINE ANTI-ICING DUCT - INSTALLATION



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REFERENCE	DESIGNATION
AMM TASK 30-41-00-700-801-A/500	WINDSHIELD WIPER SYSTEM - OPERATIONAL TEST
AMM TASK 30-41-03-000-801-A/400	ARM/BLADE ASSEMBLY - REMOVAL
AMM TASK 30-41-03-400-801-A/400	ARM/BLADE ASSEMBLY - INSTALLATION
AMM TASK 30-80-00-700-801-A/500	ICE DETECTION SYSTEM - OPERATIONAL TEST
AMM TASK 30-80-01-000-801-A/400	ICE DETECTOR - REMOVAL
AMM TASK 32-00-01-910-801-A/200	LG SAFETY PIN - INSTALLATION AND REMOVAL
AMM TASK 32-00-02-910-801-A/200	SAFETY PIN OF THE NLG DOORS SOLENOID VALVE - INSTALLATION AND REMOVAL
AMM TASK 32-10-00-200-801-A/600	MLG DOORS - INSPECTION
AMM TASK 32-10-02-200-801-A/600	MLG SHOCK ABSORBER - INSPECTION
AMM TASK 32-20-05-200-801-A/600	NLG DOORS - INSPECTION
AMM TASK 32-33-07-000-801-A/400	NLG UPLOCK BOX - REMOVAL
AMM TASK 32-33-07-400-801-A/400	NLG UPLOCK BOX - INSTALLATION
AMM TASK 32-34-00-600-801-A/300	MLG AND NLG - LUBRICATION
AMM TASK 32-34-03-700-801-A/500	FREE-FALL CONTROL CABLES - CHECK
AMM TASK 32-44-00-700-801-A/500	EMERGENCY/PARKING BRAKE SYSTEM - FUNCTIONAL CHECK
AMM TASK 32-49-03-200-801-A/600	BRAKE ASSEMBLY - INSPECTION
AMM TASK 33-12-01-000-801-A/400	DIMMER - REMOVAL
AMM TASK 33-12-01-400-801-A/400	DIMMER - INSTALLATION
AMM TASK 33-41-02-000-801-A/400	LANDING LIGHT LAMP - REMOVAL
AMM TASK 33-41-02-400-801-A/400	LANDING LIGHT LAMP - INSTALLATION
AMM TASK 33-42-02-000-801-A/400	NOSE-LANDING-GEAR TAXI LIGHT LAMP - REMOVAL
AMM TASK 33-42-02-400-801-A/400	NOSE-LANDING-GEAR TAXI LIGHT LAMP - INSTALLATION
AMM TASK 33-43-03-000-801-A/400	MAIN/STANDBY WING NAVIGATION LIGHT LAMPS - REMOVAL
AMM TASK 33-43-03-400-801-A/400	MAIN/STANDBY WING NAVIGATION LIGHT LAMPS - INSTALLATION
AMM TASK 33-43-05-000-801-A/400	MAIN/STANDBY REAR NAVIGATION LIGHT LAMPS - REMOVAL
AMM TASK 33-43-05-400-801-A/400	MAIN/STANDBY REAR NAVIGATION LIGHT LAMPS - INSTALLATION
AMM TASK 33-44-02-000-801-A/400	INSPECTION LIGHTS - REMOVAL
AMM TASK 33-44-02-400-801-A/400	INSPECTION LIGHTS - INSTALLATION
AMM TASK 33-47-03-000-801-A/400	STROBE LIGHTS - REMOVAL
AMM TASK 33-47-03-400-801-A/400	STROBE LIGHTS - INSTALLATION
AMM TASK 33-47-05-000-801-A/400	RED BEACON LIGHT ASSEMBLY - REMOVAL
AMM TASK 33-47-05-000-802-A/400	RED BEACON LIGHT LENS - REMOVAL



EMB145 - EMB135

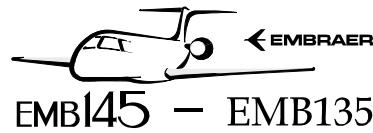
AIRCRAFT
MAINTENANCE MANUAL

(Continued)

REFERENCE	DESIGNATION
AMM TASK 33-47-05-400-801-A/400	RED BEACON LIGHT ASSEMBLY - INSTALLATION
AMM TASK 33-47-05-400-802-A/400	RED BEACON LIGHT LENS - INSTALLATION
AMM TASK 34-13-00-600-801-A/200	PITOT AND STATIC LINES - CLEANING
AMM TASK 34-13-01-000-801-A/400	PITOT SENSOR - REMOVAL
AMM TASK 34-13-01-400-801-A/400	PITOT SENSOR - INSTALLATION
AMM TASK 34-13-02-000-801-A/400	PITOT/STATIC SENSOR 3 - REMOVAL
AMM TASK 34-13-02-400-801-A/400	PITOT/STATIC SENSOR 3 - INSTALLATION
AMM TASK 34-13-03-000-801-A/400	ANEMOMETRIC STATIC PORT - REMOVAL
AMM TASK 34-13-03-400-801-A/400	ANEMOMETRIC STATIC PORT - INSTALLATION
AMM TASK 34-15-00-700-801-A/500	ADC SYSTEM - FUNCTIONAL CHECK
AMM TASK 34-15-00-700-802-A/500	ADC SYSTEM - OPERATIONAL TEST
AMM TASK 34-15-01-000-801-A/400	AIR DATA COMPUTER (ADC) - REMOVAL
AMM TASK 34-15-01-400-801-A/400	AIR DATA COMPUTER (ADC) - INSTALLATION
AMM TASK 34-15-03-000-801-A/400	TOTAL-AIR-TEMPERATURE (TAT) SENSOR - REMOVAL
AMM TASK 34-15-03-400-801-A/400	TOTAL-AIR-TEMPERATURE (TAT) SENSOR - INSTALLATION
AMM TASK 34-21-00-700-802-A/500	-
AMM TASK 34-21-01-000-801-A/400	AHRS COMPUTER - REMOVAL
AMM TASK 34-21-01-400-801-A/400	AHRS COMPUTER - INSTALLATION
AMM TASK 34-21-03-100-801-A/700	AHRS FAN FILTER - CLEANING
AMM TASK 34-32-00-700-801-A/500	VOR/ILS SYSTEM OPERATIONAL TEST
AMM TASK 34-32-01-000-801-A/400	INTEGRATED NAVIGATION UNIT - REMOVAL
AMM TASK 34-32-01-400-801-A/400	INTEGRATED NAVIGATION UNIT - INSTALLATION
AMM TASK 34-61-00-700-801-A/500	FLIGHT MANAGEMENT SYSTEM (FMS) - OPERATIONAL TEST
AMM TASK 34-61-01-000-801-A/400	FMS COMPUTER - REMOVAL
AMM TASK 34-61-01-400-801-A/400	FMS COMPUTER - INSTALLATION
AMM TASK 35-10-07-700-801-A/500	OXYGEN CYLINDER - FUNCTIONAL CHECK
AMM TASK 35-10-10-100-801-A/700	FLIGHT-CREW OXYGEN MASK - CLEANING
AMM TASK 36-00-00-700-801-A/500	LH AIR BLEED SYSTEM DUCTS - LEAKAGE TEST
AMM TASK 36-00-00-700-802-A/500	RH AIR BLEED SYSTEM DUCTS - LEAKAGE TEST
AMM TASK 36-00-00-700-803-A/500	AIR BLEED SYSTEM - OPERATIONAL TEST
AMM TASK 36-00-00-700-804-A/500	LH FUSELAGE AIR BLEED DUCTS - LEAKAGE TEST
AMM TASK 36-00-00-700-805-A/500	RH FUSELAGE AIR BLEED DUCTS - LEAKAGE TEST
AMM TASK 36-00-00-860-802-A/200	PNEUMATIC ENERGY - AIR BLEED THROUGH THE APU
AMM TASK 36-10-01-000-801-A/400	CROSS-BLEED VALVE - REMOVAL
AMM TASK 36-10-01-400-801-A/400	CROSS-BLEED VALVE - INSTALLATION

(Continued)

REFERENCE	DESIGNATION
AMM TASK 36-10-02-000-801-A/400	ENGINE-STARTING GROUND COUPLING - REMOVAL
AMM TASK 36-10-02-400-801-A/400	ENGINE STARTING GROUND COUPLING - INSTALLATION
AMM TASK 36-11-01-000-801-A/400	ENGINE BLEED-AIR CHECK VALVE - REMOVAL
AMM TASK 36-11-01-200-801-A/600	ENGINE BLEED-AIR CHECK VALVE - GENERAL VISUAL INSPECTION
AMM TASK 36-11-01-400-801-A/400	ENGINE BLEED-AIR CHECK VALVE - INSTALLATION
AMM TASK 36-11-01-700-801-A/500	ENGINE BLEED AIR CHECK VALVES - OPERATIONAL CHECK
AMM TASK 36-11-02-000-801-A/400	HIGH-STAGE VALVE - REMOVAL
AMM TASK 36-11-02-400-801-A/400	HIGH-STAGE VALVE - INSTALLATION
AMM TASK 36-11-03-000-801-A/400	FAN-AIR VALVE - REMOVAL
AMM TASK 36-11-03-400-801-A/400	FAN-AIR VALVE - INSTALLATION
AMM TASK 36-11-04-000-801-A/400	PRECOOLER - REMOVAL
AMM TASK 36-11-04-400-801-A/400	PRECOOLER - INSTALLATION
AMM TASK 36-11-05-000-801-A/400	ENGINE BLEED VALVE - REMOVAL
AMM TASK 36-11-05-400-801-A/400	ENGINE BLEED VALVE - INSTALLATION
AMM TASK 36-11-06-000-801-A/400	FAN-AIR CONTROL THERMOSTAT - REMOVAL
AMM TASK 36-11-06-000-802-A/400	FAN-AIR CONTROL THERMOSTAT - REMOVAL
AMM TASK 36-11-06-400-801-A/400	FAN-AIR CONTROL THERMOSTAT - INSTALLATION
AMM TASK 36-11-06-400-802-A/400	FAN-AIR CONTROL THERMOSTAT - INSTALLATION
AMM TASK 36-11-07-000-801-A/400	HIGH-STAGE PRESSURE SWITCH - REMOVAL
AMM TASK 36-11-07-400-801-A/400	HIGH-STAGE PRESSURE SWITCH - INSTALLATION
AMM TASK 36-11-09-000-801-A/400	FUSELAGE DUCT LINES - TYPICAL REMOVAL
AMM TASK 36-11-09-000-802-A/400	ENGINE DUCT - TYPICAL REMOVAL
AMM TASK 36-11-09-200-801-A/600	DUCT LINES OF THE BLEED SYSTEM - GENERAL VISUAL INSPECTION
AMM TASK 36-11-09-400-801-A/400	FUSELAGE DUCT LINES - TYPICAL INSTALLATION
AMM TASK 36-11-09-400-802-A/400	ENGINE DUCT - TYPICAL INSTALLATION
AMM TASK 36-11-10-000-801-A/400	AIR-BLEED LINE PAIRS OF O-RINGS - REMOVAL
AMM TASK 36-11-10-400-801-A/400	AIR-BLEED LINE PAIRS OF O-RINGS - INSTALLATION
AMM TASK 36-12-02-000-801-A/400	APU BLEED-AIR CHECK VALVE - REMOVAL
AMM TASK 36-12-02-200-801-A/600	APU BLEED-AIR CHECK VALVE - GENERAL VISUAL INSPECTION
AMM TASK 36-12-02-400-801-A/400	APU BLEED-AIR CHECK VALVE - INSTALLATION
AMM TASK 36-20-03-000-801-A/400	DIFFERENTIAL PRESSURE SWITCH - REMOVAL
AMM TASK 36-20-03-400-801-A/400	DIFFERENTIAL PRESSURE SWITCH - INSTALLATION
AMM TASK 56-10-01-200-801-A/600	COCKPIT WINDSHIELD - INSPECTION/CHECK



AIRCRAFT MAINTENANCE MANUAL

(Continued)

REFERENCE	DESIGNATION
AMM TASK 71-00-01-910-801-A/200	ENGINE START PROCEDURE (NORMAL)
AMM TASK 71-00-01-910-804-A/200	ENGINE STOP PROCEDURE
Ametek Rotron CMM 21-26-02	-
Avtech CMM 33-10-02 P/N 1826-1	-
Barber-Colman Aerospace CMM BYLB-51971-1	-
Embraer T.P. 145/1222 - 36-11-04	-
Embraer T.P. 145/1224 - 21-20-00	-
Embraer T.P. 145/1246 - 21-25-02	-
Embraer T.P. 145/1308 - 21-25-01	-
Hamilton Sundstrand CMM 21-32-20	-
Hamilton Sundstrand CMM 21-32-21	-
Hamilton Sundstrand CMM 21-32-22	-
Hamilton Sundstrand CMM 21-32-23	-
Hamilton Sundstrand CMM 21-51-68	-
Hamilton Sundstrand CMM 21-51-69	-
Hamilton Sundstrand CMM 21-51-71	-
Hamilton Sundstrand CMM 21-61-60	-
Hamilton Sundstrand CMM 21-71-09	-
Hamilton Sundstrand CMM 30-10-03	-
Hamilton Sundstrand CMM 30-20-05	-
Hamilton Sundstrand Engine Manual 40C11-1, P/N 4501966	-
Hamilton Sundstrand Engine Manual 40C14-1, P/N 4504112	-
Lucas Aerospace CMM with IPL DC Generator, 30086 series II	-
Lucas Aerospace CMM with IPL DC Starter-Generator, 23080 series III	-
NDI TASK 55-10-00-210-803-A	-
NDI TASK 55-10-00-220-801-A	-
NDI TASK 55-30-00-210-806-A	-
NDI TASK 57-28-00-210-805-A	-
Parker Hannifin CMM 29-11-14 P/N 368900	-
Rolls-Royce MM CSP 34022, TASK 72-00-00-700-801	-
Rolls-Royce MM TASK 05-50-00-200-803	-
S.B. 145-30-0021	-
S.B.145-30-0021	-
Sierracin CMM 56-10-03	-
Sundstrand Engine Manual 49-00-00	-



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

(Continued)

REFERENCE	DESIGNATION
TASK 27-11-01-200-801-A	-
TASK 30-41-03-800-801-A	-
TASK 36-11-01-700-802-A	-
TASK 56-20-00-200-801-A	-
Technofan CMM 21-25-04	-
Whittaker Controls CMM 30-11-01	-

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
4	Mechanical technicians	AR
2	Electrical technicians	AR

I. Preparation

SUBTASK 841-002-A

WARNING: DO NOT BREATH VOLCANIC ASH. DO NOT GET VOLCANIC ASH IN YOUR EYES. PUT ON PROTECTIVE CLOTHES, EYE GOGGLES, AND A RESPIRATOR MASK THAT IS SUFFICIENT TO FILTER VOLCANIC ASH PARTICLES. VOLCANIC ASH CAN CAUSE EYE IRRITATION AND INJURY TO THE RESPIRATORY SYSTEM.

- (1) Make sure that the aircraft is safe for maintenance.
- (2) Make sure that landing gear safety pins are installed on the main and nose landing gears ([AMM TASK 32-00-01-910-801-A/200](#)).
- (3) Make sure that the safety pin of the nose landing gear doors solenoid valve is installed ([AMM TASK 32-00-02-910-801-A/200](#)).
- (4) Clean and flush the aircraft external surfaces ([AMM TASK 12-22-00-600-801-A/300](#)), ([AMM TASK 12-22-00-600-802-A/300](#)), as applicable.



NOTE: Be careful when you wash a contaminated aircraft with volcanic ash. Do not rub the surface too hard because volcanic ash is very abrasive.

- (5) Clean and flush the landing gear compartments ([AMM TASK 12-22-00-600-803-A/300](#)).
- (6) Clean the windshield. Flush it with a large volume of low-pressure water on the exterior surfaces.

NOTE: This procedure will remove the contamination with no damage.

- (7) Clean the surface of the transparency in the usual manner.

NOTE: Be careful because hard particles can still be on the transparency surface.

J. Inspection

SUBTASK 212-002-A

- (1) Structural inspection.

(a) Externally examine the aircraft zones listed below for erosion, abrasion, painting bad condition, loosen bolts/rivets, nicks, skin deformation, sealant condition, warps, scratches, gouges, creases, cracks, dents, loose screws and deteriorated protective treatment:

- 1 Fuselage.
- 2 Rudder I and II.
- 3 Horizontal stabilizer.
- 4 Vertical stabilizer.
- 5 Horizontal to vertical stabilizer attachment.
- 6 Elevator.
- 7 Pylon.
- 8 Nacelle air inlet assembly.
- 9 Nacelle upper/lower cowlings.
- 10 Nacelle apron.
- 11 Nacelle reverser structure.
- 12 Nacelle plain exhaust.
- 13 Thrust reverser external zone.
- 14 Inboard, outboard and center wing leading edge.
- 15 Main door, baggage door, service door, and escape hatch.
- 16 Wing to fuselage fairings.

- (b) Examine the interior of the forward fuselage I (radome), for general condition ([AMM TASK 05-20-02-200-801-A/600](#)).
- (c) Examine the cockpit windshield for abrasion damage that limits vision ([AMM TASK 56-10-01-200-801-A/600](#)), and the passenger cabin windows (TASK 56-20-00-200-801-A) for signs of damage.
- (d) Examine the windshield faceply and frames surfaces. Refer to Sierracin CMM 56-10-03 for scratch limits.
- (e) Examine the inboard and outboard flap ([AMM TASK 05-20-90-200-801-A/600](#)), ([AMM TASK 05-20-92-200-801-A/600](#)).
- (f) Examine the aileron ([AMM TASK 05-20-94-200-801-A/600](#)).
- (g) Examine the wing root ([AMM TASK 05-20-82-200-801-A/600](#)), ([AMM TASK 05-20-84-200-801-A/600](#)).
- (h) Examine the wing middle section, between spar I and spar II ([AMM TASK 05-20-86-200-801-A/600](#)).
- (i) Examine the wing tip section, between spar I and spar II ([AMM TASK 05-20-88-200-802-A/600](#)).
- (j) Examine the ground spoiler ([AMM TASK 05-30-28-200-801-A/600](#)).
- (k) Examine the speed brake ([AMM TASK 05-30-30-200-801-A/600](#)).
- (l) Examine the airframe drainage (AMM TASK 12-23-00-600-801-A/300).
- (m) Examine the main door seal, service door seal and cargo door seal.
- (n) Examine the scotch brand abrasion resistant film applied on aircraft zones listed below:
 - 1 NACA air intake wing to fuselage fairing.
 - 2 NACA air intake forward fuselage I.
 - 3 Radome.
 - 4 Pylon Leading edge.
 - 5 Horizontal stabilizer tip.
 - 6 horizontal stabilizer leading edge root fairings.
 - 7 VOR antenna.
 - 8 Vertical stabilizer leading edge.
 - 9 Front fixed fairing.
 - 10 Wing tip.
- (o) If you find damage to the aircraft structure, repair the affected parts. Refer to the structural repair manual.

NOTE: If necessary, consult Embraer Engineering.

(2) External light inspection.

- (a) Examine the external lights that follow for abrasions and damage.

NOTE: Replace the lights that are frosted or damaged.

- 1 Landing Light Lamp ([AMM TASK 33-41-02-000-801-A/400](#)), ([AMM TASK 33-41-02-400-801-A/400](#)).
- 2 Nose landing gear taxi Light Lamp ([AMM TASK 33-42-02-000-801-A/400](#)), ([AMM TASK 33-42-02-400-801-A/400](#)).
- 3 Main/standby wing navigation lights ([AMM TASK 33-43-03-000-801-A/400](#)), ([AMM TASK 33-43-03-400-801-A/400](#)).
- 4 Main/standby rear navigation lights ([AMM TASK 33-43-05-000-801-A/400](#)), ([AMM TASK 33-43-05-400-801-A/400](#)).
- 5 Inspection lights ([AMM TASK 33-44-02-000-801-A/400](#)), ([AMM TASK 33-44-02-400-801-A/400](#)).
- 6 Strobe lights ([AMM TASK 33-47-03-000-801-A/400](#)), ([AMM TASK 33-47-03-400-801-A/400](#)).
- 7 Red beacon lights ([AMM TASK 33-47-05-000-801-A/400](#)), ([AMM TASK 33-47-05-400-801-A/400](#)).
- 8 Red beacon lights lens ([AMM TASK 33-47-05-000-802-A/400](#)), ([AMM TASK 33-47-05-400-802-A/400](#)).

(3) External sensors inspection.

- (a) Visually examine the pitot 1 and 2 sensors, pitot/static 3 sensor, total air temperature (TAT) 1 and 2 sensors, anemometric static ports 1, 2, 3 and 4 for signs of volcanic ash.

NOTE: Examine each sensor mentioned above for abrasions and damage.

- (b) Replace the damaged sensors.

NOTE: Send the old pitots sensors and TAT sensors to the vendor (Rosemount Aerospace) to be evaluated.

- 1 To replace the pitot 1 and 2 sensors refer to ([AMM TASK 34-13-01-000-801-A/400](#)), and ([AMM TASK 34-13-01-400-801-A/400](#)).
- 2 To replace the pitot/static 3 sensor refer to ([AMM TASK 34-13-02-000-801-A/400](#)), and ([AMM TASK 34-13-02-400-801-A/400](#)).
- 3 To replace the TAT 1 and 2 sensors refer to ([AMM TASK 34-15-03-000-801-A/400](#)), and ([AMM TASK 34-15-03-400-801-A/400](#)).
- 4 To replace the anemometric static ports 1, 2, 3 and 4 refer to ([AMM TASK 34-13-03-000-801-A/400](#)), and ([AMM TASK 34-13-03-400-801-A/400](#)).

- (c) Clean the pitot and static lines ([AMM TASK 34-13-00-600-801-A/200](#)).
 - (d) Replace the ice detector ([AMM TASK 30-80-01-000-801-A/400](#)).
 - NOTE: Send the old ice detector to the vendor (Rosemount Aerospace).
 - (e) Do the ice detection system operational test ([AMM TASK 30-80-00-700-801-A/500](#)).
 - (f) Do the functional check of the ADC system ([AMM TASK 34-15-00-700-801-A/500](#)).
- (4) Forward electric/electronic compartment inspection.
- (a) Visually examine the equipments installed in the electronic compartment for signs of volcanic ash.
 - 1 Examine the AHRS unit for signs of volcanic ash. If necessary, replace the AHRS unit ([AMM TASK 34-21-01-000-801-A/400](#)), and ([AMM TASK 34-21-01-400-801-A/400](#)).
 - NOTE: Return it to manufacturer Service Center for evaluation.
 - 2 Examine and clean the AHRS fan filter ([AMM TASK 34-21-03-100-801-A/700](#)). If necessary, replace the filter.
 - 3 Do the operational check of the AHRS (AMM TASK 34-21-00-700-802-A/500).
 - 4 Examine the integrated navigation unit (RNZ) for signs of volcanic ash. If necessary, replace it ([AMM TASK 34-32-01-000-801-A/400](#)), and ([AMM TASK 34-32-01-400-801-A/400](#)).
 - NOTE: Return it to manufacturer Service Center for evaluation.
 - 5 Examine and clean the integrated navigation unit fan filter. If necessary, replace the filter.
 - 6 Do the operational test of the VOR/ILS system ([AMM TASK 34-32-00-700-801-A/500](#)).
 - 7 Examine the Air Data Computer (ADC) for signs of volcanic ash. If necessary, replace the ADC ([AMM TASK 34-15-01-000-801-A/400](#)), and ([AMM TASK 34-15-01-400-801-A/400](#)).
 - NOTE: Return it to manufacturer Service Center for evaluation.
 - 8 Do the operational test of the ADC System ([AMM TASK 34-15-00-700-802-A/500](#)).
 - 9 Examine the FMS computer for signs of volcanic ash. If necessary, replace the FMS computer ([AMM TASK 34-61-01-000-801-A/400](#)), and ([AMM TASK 34-61-01-400-801-A/400](#)).
 - NOTE: Return it to manufacturer Service Center for evaluation.

- 10 Do the operational test of the Flight Management System ([AMM TASK 34-61-00-700-801-A/500](#)).
- (b) Examine the Integrated Communication Unit (RCZ) for signs of volcanic ash. If necessary, replace it ([AMM TASK 23-00-01-000-801-A/400](#)), and ([AMM TASK 23-00-01-400-801-A/400](#)).
- NOTE: Return the affected unit to the service center for evaluation.
- (c) Do the functional test of the VHF system ([AMM TASK 23-12-00-700-805-A/500](#)).
- (d) Backup battery and dimmers.
- 1 Remove the dimmers ([AMM TASK 33-12-01-000-801-A/400](#)).
 - 2 Clean the dimmers (Avtech CMM 33-10-02 P/N 1826-1).
 - 3 Install the dimmers ([AMM TASK 33-12-01-400-801-A/400](#)).
 - 4 Do a backup battery restore ([AMM TASK 24-35-01-900-801-A/200](#)).
 - 5 Remove the backup battery relay box ([AMM TASK 24-35-02-000-801-A/400](#)).
 - 6 Examine the box for dust collection and signs of volcanic ash contamination.

NOTE: If ash appears to have entered the box, replace it.
- 7 Install the backup battery relay box ([AMM TASK 24-35-02-400-801-A/400](#)).
- (e) Main batteries.
- 1 Do a main battery restore ([AMM TASK 24-36-01-900-802-A/200](#)).
 - 2 Remove the main battery 1 relay box ([AMM TASK 24-36-02-000-801-A/400](#)).
 - 3 Remove the main battery 2 relay box ([AMM TASK 24-36-03-000-801-A/400](#)).
 - 4 Examine the boxes for dust collection and signs of volcanic ash contamination.

NOTE: If ash appears to have entered the box, replace it.
- 5 Install the main battery 1 relay box ([AMM TASK 24-36-02-400-801-A/400](#)).
- 6 Install the main battery 2 relay box ([AMM TASK 24-36-03-400-801-A/400](#)).
- (5) APU starter/generator inspection.
- (a) Remove the APU starter generator ([AMM TASK 24-34-01-000-801-A/400](#)).
 - (b) Check and clean the APU starter generator (Lucas Aerospace CMM with IPL DC Starter-Generator, 23080 series III).

NOTE: If necessary, repair or replace it. Obey the CMM procedures.

- (c) Install the APU starter generator ([AMM TASK 24-34-01-400-801-A/400](#)).
- (6) Main Generator inspection.
 - (a) Remove the main generator ([AMM TASK 24-31-01-000-801-A/400](#)).
 - (b) Check and clean the main generator (Lucas Aerospace CMM with IPL DC Generator, 30086 series II).

NOTE: If necessary, repair or replace it. Obey the CMM procedures.
- (c) Install the main generator ([AMM TASK 24-31-01-400-801-A/400](#)).
- (7) Nose landing gear inspection.
 - (a) Visually examine the nose landing compartment for signs of volcanic ash.
 - 1 Examine the up lock box.

NOTE: • Replace it ([AMM TASK 32-33-07-000-801-A/400](#)), ([AMM TASK 32-33-07-400-801-A/400](#)), if volcanic ash were found in the up lock box aperture.
 - Send it to a repair shop for internal inspection.
 - 2 Examine the pulley and cables of the free-fall mechanism. Do the free-fall control cables check ([AMM TASK 32-34-03-700-801-A/500](#)).
 - 3 Examine the emergency/parking brake cable and valve. Do the functional check of the emergency/parking brake system ([AMM TASK 32-44-00-700-801-A/500](#)).
 - 4 Examine the left and right ball bearings of the nose landing gear leg articulation.
 - 5 Examine the left and right ball bearings of the upper main brace strut articulation.
 - 6 Examine the ball bearings of the lower main brace strut.
 - 7 Examine the piston rods of the unlocking and maneuvering actuators.
 - 8 Examine the torque link bushings.
 - 9 Examine the sliding tube.
 - 10 Examine the nose landing gear doors ([AMM TASK 32-20-05-200-801-A/600](#)) and the hydraulic actuator piston rods of nose landing gear doors.
 - (b) If you find signs of volcanic ash, remove the ash.
 - (c) If you find a damaged component, repair or replace the component.
 - (d) Lubricate the nose landing gear ([AMM TASK 32-34-00-600-801-A/300](#)).

NOTE: All joints, connections, and bearing surfaces must be in a clean condition.

(8) Main landing gear inspection.

- (a) Visually examine the main landing compartment for signs of volcanic ash.

1 Examine the up lock box.

NOTE: • Replace it ([AMM TASK 32-33-07-000-801-A/400](#)), ([AMM TASK 32-33-07-400-801-A/400](#)), if volcanic ash were found in the up lock box aperture.

• Send it to a repair shop for internal inspection.

2 Examine the pulley and cables of the free-fall mechanism. Do the free-fall control cables check ([AMM TASK 32-34-03-700-801-A/500](#)).

3 Examine the fore and aft ball bearings of the main landing gear articulation.

4 Examine the fore and aft ball bearings of the upper main landing gear articulation.

5 Examine the ball bearings of the lower main brace strut.

6 Examine the piston rods of the unlocking and maneuvering actuators.

7 Examine the shock absorber ([AMM TASK 32-10-02-200-801-A/600](#)).

8 Examine the area between brake pistons and plate ([AMM TASK 32-49-03-200-801-A/600](#)).

9 Examine the main landing gear doors ([AMM TASK 32-10-00-200-801-A/600](#)).

- (b) If you find signs of volcanic ash, remove the ash.

- (c) If you find a damaged component, repair or replace the component.

- (d) Lubricate the main landing gear ([AMM TASK 32-34-00-600-801-A/300](#)).

NOTE: All joints, connections, and bearing surfaces must be in a clean condition.

(9) Fuel system inspection.

WARNING: BEFORE YOU DO THE FUEL SYSTEM INSPECTION, OBEY THE SAFETY PRECAUTIONS GIVEN IN [AMM MPP 28-00-00/200](#) TO PREVENT INJURY TO PERSONS AND DAMAGE TO MATERIAL.

- (a) Drain the fuel tanks ([AMM TASK 12-11-03-600-801-A/300](#)). Visually examine the collected fuel for volcanic ash contamination.

- (b) Defuel the fuel tanks by gravity method ([AMM TASK 12-11-02-600-802-A/300](#)).

- (c) Examine the NACA air inlets for signs of volcanic ash contamination and for absence of obstruction ([AMM TASK 28-12-03-200-801-A/600](#)).

NOTE: Clean the NACA air inlets if signs of volcanic ash were found.

- (d) Examine the flame arrestor for signs of volcanic ash contamination and for absence of obstruction ([AMM TASK 28-12-05-200-801-A/600](#)).
- (e) Examine the vent valves screens for signs of volcanic ash contamination and for absence of obstruction.
- (f) Examine the vent float valves and vent valves for signs of volcanic ash contamination and for absence of obstruction ([AMM TASK 28-12-01-700-801-A/500](#)).
- (g) Remove the fuel line drain plug (located near the fuel tank drain valve), to drain the fuel lines.

NOTE: After draining the fuel lines do not forget to install the fuel line drain plug.

- (h) Do a visual inspection of the ejector pump for integrity and make sure that the screen and nozzle are not clogged ([AMM TASK 28-21-02-200-801-A/600](#)).
- (i) Examine the APU fuel inlet filter and the APU fuel pump filter. Refer to Hamilton Sundstrand Engine Manual 40C11-1, P/N 4501966 or Hamilton Sundstrand Engine Manual 40C14-1, P/N 4504112.
- (j) Remove the tank units ([AMM TASK 28-41-02-000-801-A/400](#)). Examine the probes for volcanic ash contamination and clean them if necessary.
- (k) Do the decontamination of integral fuel tanks for volcanic ash ([AMM TASK 28-11-00-300-802-A/700](#)).

NOTE: Is not necessary to do the methyl alcohol application procedure.

(10) Engines inspection.

- (a) Examine the engines after operation in a volcanic ash fallout condition. Refer to the latest revision of Rolls-Royce MM TASK 05-50-00-200-803.
- (b) Do the applicable test of the engines according to the latest revision of Rolls-Royce MM CSP 34022, TASK 72-00-00-700-801.

(11) Auxiliary power unit (APU) inspection.

- (a) Remove the air inlet screens.
- (b) Visually examine the compressor leading edges for evidence of significant removal of material from the root of the leading edges (1/8th inch concavity or more).

NOTE: Remove the APU ([AMM MPP 49-10-01/400](#)) if evidence were found. A detail inspection must be done. Refer to Sundstrand Engine Manual 49-00-00.

- (c) The Pcd tubes, check valve and combustor drain must be removed ([AMM MPP 49-31-02/400](#), [AMM MPP 49-17-01/400](#)) and flushed/washed with water and detergent or solvent to remove any particulates.

- (d) If high concentrations of sulfur are suspected to be present in the atmosphere or the ash, a water wash is advised (Sundstrand Engine Manual 49-00-00).
 - (e) If the performance has deteriorated beyond specific limits ([AMM MPP 49-02-00/200](#), [AMM MPP 49-00-00/200](#)), remove the APU ([AMM MPP 49-10-01/400](#)) and do a borescope or physical inspection of the APU with the combustor removed. Refer to Sundstrand Engine Manual 49-00-00.
- (12) Flight controls inspection.
- (a) Examine the actuator bare piston rods of the components that follow for signs of volcanic ash contamination:
 - 1 Aileron PCA's ([AMM TASK 27-12-01-200-802-A/600](#)).
 - 2 Aileron dampers ([AMM TASK 27-12-03-200-801-A/600](#)), if applicable.
 - 3 Rudder actuators ([AMM TASK 27-22-02-200-801-A/600](#)).
 - 4 Rudder stop actuators.
 - 5 Spoilers ([AMM TASK 27-62-00-200-801-A/600](#)).
 - (b) Examine all control cables for signs of volcanic ash contamination ([AMM TASK 27-11-00-200-801-A/600](#)), ([AMM TASK 27-21-01-200-802-A/600](#)), ([AMM TASK 27-31-01-200-803-A/600](#)).
 - (c) Examine the horizontal stabilizer actuator for signs of volcanic ash contamination ([AMM TASK 27-40-02-200-801-A/600](#)).
 - (d) Examine the flaps actuators for signs of volcanic ash contamination ([AMM TASK 27-51-00-200-801-A/600](#)).
 - (e) Examine the gust lock below mechanism for signs of volcanic ash contamination.
 - 1 The mechanical gust lock below cockpit, if applicable.
 - 2 The electromechanical gust lock mechanism at the horizontal stabilizer, if applicable.
 - (f) Examine all flight controls surfaces hinge points for signs of volcanic ash contamination.
 - 1 The left and right ailerons ([NDI TASK 57-28-00-210-805-A](#)).
 - 2 Rudder surfaces I and II.
 - 3 The left and right elevators ([NDI TASK 55-10-00-220-801-A](#)).
 - 4 The left and right elevator servo tabs.
 - 5 Left and right elevator spring tabs.
 - 6 Horizontal stabilizer ([NDI TASK 55-10-00-210-803-A](#), [NDI TASK 55-30-00-210-806-A](#)).

7 Spoilers.

- (g) Examine the tracks and rollers of the flaps ([AMM TASK 27-51-15-200-801-A/600](#)).
- (h) Examine the flaps lower shrouds, shroud drives and rollers for signs of volcanic ash contamination.
- (i) Examine the rudder PCU feed back mechanism for signs of volcanic ash contamination ([AMM TASK 27-21-02-200-801-A/600](#)).
- (j) Examine the elevator reward torque tube area for signs of volcanic ash contamination.
- (k) Examine the elevator servo tab connecting rod area for signs of volcanic ash contamination ([AMM TASK 27-31-05-200-801-A/600](#)).
- (l) Examine the elevator spring tab connecting rod area for signs of volcanic ash contamination ([AMM TASK 27-31-05-200-802-A/600](#)).
- (m) Examine the spoilers proximity sensors for signs of volcanic ash contamination.
- (n) Examine the rudder PCU area for signs of volcanic ash contamination.
- (o) Examine the area of the forward torque tubes (aileron, rudder and elevator) for signs of volcanic ash contamination (TASK 27-11-01-200-801-A, [AMM TASK 27-21-01-200-802-A/600](#), [AMM TASK 27-31-01-200-801-A/600](#)).
- (p) Replace the angle of attack (AOA) sensor ([AMM TASK 27-36-01-000-801-A/400](#)), ([AMM TASK 27-36-01-400-801-A/400](#)).

NOTE: Send the old angle of attack (AOA) sensor to the vendor (Rosemount Aerospace).

- (q) If you find signs of volcanic ash, remove the ash.
 - (r) If you find a damaged component, repair or replace the component.
- (13) Oxygen system inspection.
- (a) Examine the crew oxygen masks for signs of volcanic ash contamination and clean them ([AMM TASK 35-10-10-100-801-A/700](#)).
 - (b) Examine the passenger oxygen masks for signs of volcanic ash contamination and clean them ([AMM TASK 35-10-10-100-801-A/700](#)).
 - (c) Do the functional check of the crew oxygen cylinder ([AMM TASK 35-10-07-700-801-A/500](#)).
- (14) Potable water system inspection.
- (a) Drain a water sample of the potable water tank through the faucet and do an analysis to find volcanic ash waste.
- NOTE: If signs of volcanic ash contamination were found, sterilize the potable water tank ([AMM TASK 12-15-02-600-801-A/300](#)).

(15) Smoke detectors inspection.

- (a) Examine the smoke detectors in the baggage compartment for signs of volcanic ash contamination.
- (b) Do the check of the baggage smoke detection system (AMM TASK 26-15-00-700-801-A/500), (AMM TASK 26-15-00-700-802-A/500), (AMM TASK 26-15-00-700-803-A/500), as applicable.

NOTE: Replace the baggage smoke detectors if signs of damage were found (AMM TASK 26-15-01-000-801-A/400), (AMM TASK 26-15-01-400-801-A/400), (AMM TASK 26-15-01-000-802-A/400), (AMM TASK 26-15-01-400-802-A/400), as applicable.

- (c) Examine the lavatory smoke detector for signs of volcanic ash contamination.
- (d) Do the operational check of the lavatory smoke-detection system (AMM TASK 26-14-00-700-801-A/500), (AMM TASK 26-14-00-700-802-A/500), as applicable.

NOTE: Replace the lavatory smoke detector if signs of damage were found (AMM TASK 26-14-01-000-801-A/400), (AMM TASK 26-14-01-400-801-A/400).

(16) Fire extinguisher discharge piping nozzles inspection.

- (a) Do a inspection on baggage compartment discharge piping nozzles for blocking caused by volcanic ash (AMM TASK 26-23-05-200-801-A/600).

NOTE: Clean the discharge piping nozzles if you find volcanic ash.

- (b) Examine the APU fire extinguishing piping outlets for blocking caused by volcanic ash (AMM TASK 26-22-04-200-801-A/600).

NOTE: If necessary clean the discharge piping outlets.

- (c) Examine the engine fire extinguishing piping outlets for blocking caused by volcanic ash (AMM TASK 26-21-06-200-801-A/600).

NOTE: If necessary clean the discharge piping outlets.

- (d) Do a visual inspection of the portable fire extinguishers. Make sure that the nozzles are not clogged (AMM TASK 26-24-00-200-801-A/600), (AMM TASK 26-24-00-200-803-A/600).

(17) Hydraulic systems inspection.

- (a) Remove the hydraulic rack compartment access panels 193BL and 193CR (AMM MPP 06-41-01/100).

- (b) Do the analysis of the hydraulic fluid (AMM TASK 29-10-00-200-803-A/600).

- (c) Examine the hydraulic system reservoirs assembly for signs of volcanic ash.

NOTE: • Replace it if signs of volcanic ash contamination were found (AMM TASK 29-10-05-000-801-A/400).

- Provide an internal inspection of its dry chamber. Refer to Parker Hannifin CMM 29-11-14 P/N 368900.
- (d) Verify if the electric motor driven pumps (EMDP) was turned on in a volcanic ash fallout conditions.
- (e) Examine the electric motor driven pumps (EMDP) for signs of volcanic ash.
- NOTE: • Replace the EMDP if it was turned on in a volcanic ash fallout conditions ([AMM TASK 29-10-04-000-801-A/400](#)), ([AMM TASK 29-10-04-400-801-A/400](#)).
- Remove the ash if the electric motor driven pumps (EMDP) was not turned on in a volcanic ash fallout conditions.
- (f) Visually examine the remaining components located at hydraulic rack compartments for signs of volcanic ash.
- NOTE: Remove the ash. If you find a damaged component, repair or replace it.
- (g) Install the hydraulic rack compartment access panels 193BL and 193CR (AMM MPP 06-41-01/100).
- (18) Air conditioning system.
- (a) Examine the electropneumatic outflow valve for signs of volcanic ash.
- NOTE: If you find volcanic ash, clean it ([AMM TASK 21-31-03-100-801-A/700](#)).
- (b) Examine the pneumatic outflow valve for signs of volcanic ash.
- NOTE: If you find volcanic ash, clean it ([AMM TASK 21-31-04-100-801-A/700](#)).
- (c) Replace the air filter element ([AMM TASK 21-31-08-960-801-A/200](#)).
- (d) Clean the static ports and static port line ([AMM TASK 21-31-13-100-801-A/700](#)).
- (e) Remove, clean and replace if necessary all ram air circuit hardware (air inlets, dual heat exchanger ram air inlet duct, dual heat exchanger ram air outlet duct, and emergency ventilation ducts).
- (f) Remove the ram air valve ([AMM TASK 21-25-01-000-801-A/400](#)), and clean it if you find volcanic ash (Embraer T.P. 145/1308 - 21-25-01).
- NOTE: Replace the bushings if signs of DAMAGE were found (Embraer T.P. 145/1308 - 21-25-01).
- (g) Examine the linear actuator for signs of volcanic ash contamination.
- NOTE: If you find volcanic ash, clean it.
- (h) Remove the ram air check valve ([AMM TASK 21-25-02-000-801-A/400](#)), and clean it (Embraer T.P. 145/1246 - 21-25-02).
- NOTE: Replace the ram air check valve if signs of damage were found ([AMM TASK 21-25-02-400-801-A/400](#)).

- (i) Remove and clean the water spray nozzle hose.
- (j) Remove the water spray nozzle ([AMM TASK 21-51-13-000-801-A/400](#)), and clean it ([AMM TASK 21-51-13-100-801-A/700](#)).
- (k) Do the inspection of the water spray nozzle ([AMM TASK 21-51-13-200-801-A/600](#)).
- (l) Remove the dual heat exchanger ([AMM TASK 21-51-02-000-801-A/400](#)), and clean it (Hamilton Sundstrand CMM 21-51-69).
- (m) Remove the condenser/mixer ([AMM TASK 21-51-04-000-801-A/400](#)), and clean it (Hamilton Sundstrand CMM 21-71-09).
- (n) Remove the dual temperature control valve (torque motor dual valve), ([AMM TASK 21-60-01-000-801-A/400](#)), and clean it (Hamilton Sundstrand CMM 21-61-60).
- (o) Remove the air cycle machine ([AMM TASK 21-51-03-000-801-A/400](#)), and check for turbine rotor blade separation.

NOTE: If necessary, do a overhaul (Hamilton Sundstrand CMM 21-51-68).

- (p) Remove the pack valve ([AMM TASK 21-51-01-000-801-A/400](#)), and clean it (Hamilton Sundstrand CMM 21-32-21). Replace the filter (Hamilton Sundstrand CMM 21-32-21).
- (q) Remove the water collector ([AMM TASK 21-51-05-000-801-A/400](#)). Clean it and remove all signs of volcanic ash contamination.
- (r) Replace the pack overpressure switch ([AMM TASK 21-51-06-000-801-A/400](#)), ([AMM TASK 21-51-06-400-801-A/400](#)), the pack set down switch ([AMM TASK 21-51-07-000-801-A/400](#)), ([AMM TASK 21-51-07-400-801-A/400](#)), and the pack overtemperature switch ([AMM TASK 21-51-08-000-801-A/400](#)), ([AMM TASK 21-51-08-400-801-A/400](#)).
- (s) Replace the pack duct overtemperature switch ([AMM TASK 21-51-09-000-801-A/400](#)), ([AMM TASK 21-51-06-400-801-A/400](#)) and the duct temperature sensor ([AMM TASK 21-60-03-000-801-A/400](#)), ([AMM TASK 21-60-03-400-801-A/400](#)).
- (t) Clean all ducts and pack flexible couplings and remove all signs of volcanic ash contamination before install them.

NOTE: Examine and replace if necessary the pack flexible couplings.

- (u) Examine and clean the shutoff valves (electronic compartment). Remove all signs of volcanic ash contamination. Refer to Barber-Colman Aerospace CMM BYLB-51971-1 butterfly valve and actuator assembly.

NOTE: Replace the shutoff valves if signs of damage were found ([AMM TASK 21-26-01-000-801-A/400](#)), ([AMM TASK 21-26-01-400-801-A/400](#)).

- (v) Examine and clean with water the NACA air inlets and water separators (electronic compartment). The water flow must be directed from inside the electronic compartment towards the outside.

- (w) Examine and clean the fans located at the electronic compartment (Ametek Rotron CMM 21-26-02).

NOTE: Replace the fans if signs of damage were found ([AMM TASK 21-26-02-000-801-A/400](#)), ([AMM TASK 21-26-02-400-801-A/400](#)).

- (x) Remove the check valves located at the electronic compartment ([AMM TASK 21-26-06-000-801-A/400](#)). If you find volcanic ash contamination, clean and lubricate them ([AMM TASK 21-26-06-100-801-A/700](#)), ([AMM TASK 21-26-06-600-801-A/300](#)).

NOTE: Replace the check valves if signs of damage were found ([AMM TASK 21-26-06-400-801-A/400](#)).

- (y) Remove the ducts located at the electronic compartment ([AMM TASK 21-26-08-000-801-A/400](#)). Clean them for volcanic ash contamination.

NOTE: Replace the ducts if signs of damage were found ([AMM TASK 21-26-08-960-801-A/200](#)).

- (z) Remove the air distribution valves (AMM TASK 21-22-01-000-801-A/400). Clean them for volcanic ash contamination (Embraer T.P. 145/1224 - 21-20-00).

- (aa) Remove the gasper shutoff valve (AMM TASK 21-23-01-000-801-A/400). Clean them for volcanic ash contamination (Embraer T.P. 145/1224 - 21-20-00).

- (ab) Examine and clean the ground connection valve. Remove all signs of volcanic ash contamination.

- (ac) Remove the recirculation fans ([AMM TASK 21-24-01-000-801-A/400](#)) and the gasper fan (AMM TASK 21-23-03-000-801-A/400). Clean them for volcanic ash contamination (Technofan CMM 21-25-04).

NOTE: Replace the recirculation and gasper fans if signs of damage were found ([AMM TASK 21-24-01-400-801-A/400](#)), ([AMM TASK 21-23-03-400-801-A/400](#)).

- (ad) Examine the inlet muffler screen of gasper system (AMM TASK 21-23-04-200-801-A/600), ([AMM TASK 21-23-04-200-802-A/600](#)) as applicable. Remove all signs of volcanic ash contamination (AMM TASK 21-23-04-100-801-A/700), ([AMM TASK 21-23-04-100-802-A/700](#)), as applicable.

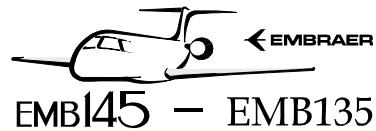
- (ae) Examine the inlet muffler screen of recirculation system ([AMM TASK 21-24-02-200-801-A/600](#)). Remove all signs of volcanic ash contamination ([AMM TASK 21-24-02-100-801-A/700](#)).

- (af) Clean the air conditioning system ducts (AMM TASK 21-20-00-100-801-A/700), ([AMM TASK 21-20-00-100-802-A/700](#)), as applicable.

- (ag) Install the ram air valve ([AMM TASK 21-25-01-400-801-A/400](#)).

- (ah) Install the ram air check valve ([AMM TASK 21-25-02-400-801-A/400](#)).

- (ai) Install the water spray nozzle hose and the water spray nozzle ([AMM TASK 21-51-13-400-801-A/400](#)).



- (aj) Install the dual heat exchanger ([AMM TASK 21-51-02-400-801-A/400](#)).
 - (ak) Install the condenser/mixer ([AMM TASK 21-51-04-400-801-A/400](#)).
 - (al) Install the dual temperature control valve ([AMM TASK 21-60-01-400-801-A/400](#)).
 - (am) Install the air cycle machine ([AMM TASK 21-51-03-400-801-A/400](#)).
 - (an) Install the pack valve ([AMM TASK 21-51-01-400-801-A/400](#)).
 - (ao) Install the water collector ([AMM TASK 21-51-05-400-801-A/400](#)).
 - (ap) Install the air distribution valves (AMM TASK 21-22-01-400-801-A/400).
 - (aq) Install the gasper shutoff valve (AMM TASK 21-23-01-400-801-A/400).
 - (ar) Install the recirculation fans ([AMM TASK 21-24-01-400-801-A/400](#)) and the gasper fan (AMM TASK 21-23-03-400-801-A/400).
- (19) Pneumatic system inspection.
- (a) Bleed system ducts.
 - 1 Remove all bleed system ducts (APU, packs, fan air servo line, pylon internal ducts and fan air circuit), ([AMM TASK 36-11-09-000-801-A/400](#)), ([AMM TASK 36-11-09-000-802-A/400](#)), as applicable.
 - 2 Clean the ducts, remove all signs of volcanic ash contamination.
 - 3 Examine the ducts ([AMM TASK 36-11-09-200-801-A/600](#)).
NOTE: Replace the ducts if you find signs of corrosion, erosion or abrasion.
 - 4 Clean the system joints with a lint free cloth, moistened with isopropyl alcohol.
 - 5 Replace the system O-rings ([AMM TASK 36-11-10-000-801-A/400](#)), ([AMM TASK 36-11-10-400-801-A/400](#)).
 - 6 Install bleed system ducts ([AMM TASK 36-11-09-400-801-A/400](#)), ([AMM TASK 36-11-09-400-802-A/400](#)), as applicable.
 - 7 Perform a leakage test in the system ([AMM TASK 36-00-00-700-801-A/500](#)), ([AMM TASK 36-00-00-700-802-A/500](#)), ([AMM TASK 36-00-00-700-803-A/500](#)), ([AMM TASK 36-00-00-700-804-A/500](#)), ([AMM TASK 36-00-00-700-805-A/500](#)).
 - (b) Engine check valves.
 - 1 Remove the engine check valves ([AMM TASK 36-11-01-000-801-A/400](#)).

- 2 Clean and examine the engine check valves, remove all signs of volcanic ash contamination. Do a general visual inspection ([AMM TASK 36-11-01-200-801-A/600](#)).

NOTE: Replace the engine check valves if you find signs of corrosion, erosion or abrasion.

- 3 Install the engine check valves ([AMM TASK 36-11-01-400-801-A/400](#)) and perform an adjustment/test procedure ([AMM TASK 36-11-01-700-801-A/500](#)), ([TASK 36-11-01-700-802-A](#)).

(c) APU check valves.

- 1 Remove the APU check valves ([AMM TASK 36-12-02-000-801-A/400](#)).

- 2 Clean and examine the APU check valves, remove all signs of volcanic ash contamination. Do a general visual inspection ([AMM TASK 36-12-02-200-801-A/600](#)).

NOTE: Replace the engine check valves if you find signs of corrosion, erosion or abrasion.

- 3 Install the APU check valves ([AMM TASK 36-12-02-400-801-A/400](#)).

(d) High stage valve.

- 1 Remove the high stage valve ([AMM TASK 36-11-02-000-801-A/400](#)).

- 2 Perform the high stage valve filter change or cleaning by ultrasonic method (Hamilton Sundstrand CMM 21-32-20).

- 3 Visually examine the high stage valve.

NOTE: If you find any sign of wear or corrosion, replace the high stage valve ([AMM TASK 36-11-02-400-801-A/400](#)).

- 4 Install the high stage valve ([AMM TASK 36-11-02-400-801-A/400](#)).

(e) Cross bleed valve.

- 1 Remove the cross bleed valve ([AMM TASK 36-10-01-000-801-A/400](#)).

- 2 Perform the cross bleed valve filter change or cleaning by ultrasonic method (Hamilton Sundstrand CMM 21-32-22).

- 3 Visually examine the cross bleed valve.

NOTE: If you find any sign of wear or corrosion, replace the cross bleed valve ([AMM TASK 36-10-02-400-801-A/400](#)).

- 4 Install the cross bleed valve ([AMM TASK 36-10-01-400-801-A/400](#)).

(f) Engine bleed valve.

- 1 Remove the engine bleed valve ([AMM TASK 36-11-05-000-801-A/400](#)).

2 Perform the engine bleed valve filter change or cleaning by ultrasonic method (Hamilton Sundstrand CMM 21-32-23).

3 Visually examine the engine bleed valve.

NOTE: If you find any sign of wear or corrosion, replace the engine bleed valve ([AMM TASK 36-11-05-400-801-A/400](#)).

4 Install the engine bleed valve ([AMM TASK 36-11-05-400-801-A/400](#)).

(g) Fain air valve.

1 Remove the fain air valve ([AMM TASK 36-11-03-000-801-A/400](#)).

2 Perform the fain air valve filter change or cleaning by ultrasonic method (Hamilton Sundstrand CMM 21-51-71).

3 Visually examine the valve.

NOTE: If you find any sign of wear or corrosion, replace the fain air valve ([AMM TASK 36-11-03-400-801-A/400](#)).

4 Install the fain air valve ([AMM TASK 36-11-03-400-801-A/400](#)).

(h) Fain air control thermostat.

1 Remove the fain air control thermostat ([AMM TASK 36-11-06-000-801-A/400](#)), ([AMM TASK 36-11-06-000-802-A/400](#)), as applicable.

2 Replace the fain air control thermostat with a new or overhauled thermostat.

3 Install the fain air control thermostat ([AMM TASK 36-11-06-400-801-A/400](#)), ([AMM TASK 36-11-06-400-802-A/400](#)), as applicable.

(i) Precooler.

1 Remove the precooler ([AMM TASK 36-11-04-000-801-A/400](#)).

2 Visually examine the precooler.

NOTE: If you find any sign of wear or corrosion, replace the precooler ([AMM TASK 36-11-04-400-801-A/400](#)).

3 Clean the precooler (Embraer T.P. 145/1222 - 36-11-04).

4 Install the precooler ([AMM TASK 36-11-04-400-801-A/400](#)).

(j) Engine starting ground connection.

1 Remove the engine starting ground connection ([AMM TASK 36-10-02-000-801-A/400](#)).

2 Visually examine the engine starting ground connection.

NOTE: If you find any sign of wear or corrosion, replace the engine starting ground connection ([AMM TASK 36-10-02-400-801-A/400](#)).

- 3 Clean and install the engine starting ground connection (AMM TASK 36-10-02-400-801-A/400).
- (k) High stage pressure switch.
 - 1 Remove the high stage pressure switch (AMM TASK 36-11-07-000-801-A/400).
 - 2 Replace the high stage pressure switch with a new or overhauled pressure switch.
 - 3 Install the high stage pressure switch (AMM TASK 36-11-07-400-801-A/400).
- (l) (FOR AIRCRAFT WITH DIFFERENTIAL PRESSURE SWITCH ACTIVATED OR PRE-MOD SB 145-36-A018) Differential pressure switch.
 - 1 Remove the differential pressure switch (AMM TASK 36-20-03-000-801-A/400).
 - 2 Replace the differential pressure switch with a new or overhauled differential pressure switch.
 - 3 Install the differential pressure switch (AMM TASK 36-20-03-400-801-A/400).

(20) Ice and rain protection system inspection.

WARNING: USE CLEAN, SOFT (COTTON), NON-SYNTHETIC, AND LINT-FREE CLOTHS ONLY. DO NOT USE PRODUCTS THAT CAN ATTACK THE SURFACES.

- (a) Wing thermal anti-icing system.
 - 1 Remove the wing anti-icing valve (AMM TASK 30-11-01-000-801-A/400).
 - 2 Remove the wing anti-icing ducts (AMM TASK 30-11-08-000-801-A/400).
 - 3 Remove the wing anti-icing piccolo tubes (AMM TASK 30-11-07-000-801-A/400).
 - 4 Clean the wing anti-icing valve.

NOTE: • PRE-MOD. S.B. 145-30-0021. Refer to Whittaker Controls CMM 30-11-01.

• POST-MOD. S.B. 145-30-0021. Refer to Hamilton Sundstrand CMM 30-10-03.
 - 5 Clean the wing anti-icing ducts.
 - 6 Clean with a dry clean cloth the wing anti-icing leak thermostat.

- 7 Examine the wing anti-icing piccolo tubes for ash accumulation.

 - a If there is ash accumulation on the wing anti-icing piccolo tubes, remove the ash with a vacuum cleaner.

NOTE: Do not let residues stay there.
 - 8 Examine inside the forward box of the wing leading edges for ash accumulation.

 - a If there is ash inside the forward box of the wing leading edges, report to Embraer.
 - 9 Install the wing anti-icing valve ([AMM TASK 30-11-01-400-801-A/400](#)).
 - 10 Install the wing anti-icing ducts ([AMM TASK 30-11-08-400-801-A/400](#)).
- WARNING: BEFORE THE INSTALLATION OF THE PICCOLO TUBES AND LEADING EDGES OF THE WING, MAKE SURE THAT THEY ARE COMPLETELY DRY AND CLEAN.**
- 11 Install the wing anti-icing piccolo tubes ([AMM TASK 30-11-07-400-801-A/400](#)).
 - 12 Do the wing thermal anti-icing system functional test ([AMM TASK 30-11-00-700-802-A/500](#)).
- (b) Horizontal-stabilizer thermal anti-icing system.
- 1 Remove the horizontal-stabilizer anti-icing valve ([AMM TASK 30-12-01-000-801-A/400](#)).
 - 2 Remove horizontal-stabilizer anti-icing ducts ([AMM TASK 30-12-07-000-801-A/400](#)).
 - 3 Remove the horizontal-stabilizer anti-icing piccolo tubes ([AMM TASK 30-12-06-000-801-A/400](#)).
 - 4 Clean the horizontal-stabilizer anti-icing valve.

 - PRE-MOD. [S.B.145-30-0021](#). Refer to Whittaker Controls CMM 30-11-01.
 - POST-MOD. [S.B.145-30-0021](#). Refer to Hamilton Sundstrand CMM 30-10-03.
 - 5 Clean the horizontal-stabilizer anti-icing ducts.
 - 6 Clean with a dry clean cloth the horizontal-stabilizer anti-icing leak thermostat.

- 7 Examine the horizontal-stabilizer anti-icing piccolo tubes for ash accumulation.
 - a If there is ash accumulation on the horizontal-stabilizer anti-icing piccolo tubes, remove the ash with a vacuum cleaner.

NOTE: Do not let residues stay there.
- 8 Examine inside the forward box of the horizontal-stabilizer leading edges for ash accumulation.
 - a If there is ash inside the forward box of the horizontal-stabilizer leading edges, report to Embraer.
- 9 Install the horizontal-stabilizer anti-icing valve ([AMM TASK 30-12-01-400-801-A/400](#)).
- 10 Install the horizontal-stabilizer anti-icing ducts ([AMM TASK 30-12-07-400-801-A/400](#)).

WARNING: BEFORE THE INSTALLATION OF THE PICCOLO TUBES AND LEADING EDGES OF THE HORIZONTAL STABILIZER, MAKE SURE THAT THEY ARE COMPLETELY DRY AND CLEAN.

- 11 Install the horizontal-stabilizer anti-icing piccolo tubes ([AMM TASK 30-12-06-400-801-A/400](#)).
- 12 Do the horizontal-stabilizer thermal anti-icing system ducts leakage test ([AMM TASK 30-12-00-700-804-A/500](#)).
- 13 Do the horizontal-stabilizer thermal anti-icing system vertical ducts leakage test ([AMM TASK 30-12-00-700-805-A/500](#)).
- 14 Do the horizontal-stabilizer thermal anti-icing system functional test ([AMM TASK 30-12-00-700-803-A/500](#)).
- 15 Do the airfoil anti-icing system operational test ([AMM TASK 30-10-00-700-801-A/500](#)).

(c) Engine thermal anti-icing system.

- 1 Remove engine thermal anti-icing valve ([AMM TASK 30-21-01-000-801-A/400](#)).
- 2 Remove engine thermal anti-icing ducts ([AMM TASK 30-21-05-000-801-A/400](#)).
- 3 Clean engine thermal anti-icing ducts.
- 4 Clean the engine thermal anti-icing valve. Refer to Hamilton Sundstrand CMM 30-20-05 of Microtecnica.
- 5 Install the engine thermal anti-icing valve ([AMM TASK 30-21-01-400-801-A/400](#)).

- 6 Install the engine thermal anti-icing ducts ([AMM TASK 30-21-05-400-801-A/400](#)).
- 7 Start the engines ([AMM TASK 71-00-01-910-801-A/200](#)).
- 8 Set the BLEED 1 and 2 push-buttons to OFF.
- 9 Set the PACK 1 and PACK 2 push-buttons to OFF.
- 10 Set the WING push-buttons to OFF.
- 11 Set the STAB push-buttons to OFF.
- 12 Set the ENGINE AIR INLET push-button to ON.
- 13 Set the thrust lever to a minimum 83% of N2.
- 14 Set the override switch to ENG.
NOTE: The OPEN indication on the engine anti-icing panel will come on.
- 15 Keep this condition for 5 minutes.
NOTE: Obey the engine temperature level limits for ground operations.
- 16 Stop the engines ([AMM TASK 71-00-01-910-804-A/200](#)).
- 17 Do the engine thermal anti-icing functional test ([AMM TASK 30-21-00-700-802-A/500](#)).
- 18 Do the engine thermal anti-icing operational test ([AMM TASK 30-21-00-700-803-A/500](#)).

(d) Windshield wiper system.

- 1 Remove the arm/blade assembly ([AMM TASK 30-41-03-000-801-A/400](#)).
- 2 Clean with a dry clean cloth the bearing of the motor/converter; remove all the volcanic ash accumulated.
- 3 Clean with a dry clean cloth the arm/blade assembly.
- 4 After cleaning, examine the arm/blade assembly for damage.
NOTE: If it is damaged, replace arm/blade assembly ([AMM TASK 30-41-03-000-801-A/400](#)).
- 5 If it is not damaged, install the arm/blade assembly ([AMM TASK 30-41-03-400-801-A/400](#)).
- 6 Adjust the arm/blade assembly ([TASK 30-41-03-800-801-A](#)).
- 7 Clean with a dry clean cloth the windshield wiper control box.
- 8 Do the windshield wiper system operational test ([AMM TASK 30-41-00-700-801-A/500](#)).

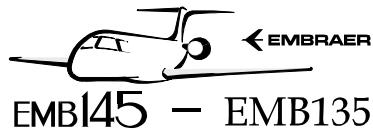
- (e) Windshield heating system.
 - 1 If there is a big concentration of volcanic ash, clean with a dry clean cloth the windshield power contactor box.
 - (f) Do the anti-icing system operational test ([AMM TASK 30-00-00-700-802-A/500](#)).
 - (g) Do the anti-icing system operational check ([AMM TASK 30-00-00-700-801-A/500](#)).
- (21) Interior inspection.
- (a) Examine the internal areas of the aircraft for signs of volcanic ash contamination.
 - 1 Visually examine the cockpit and its components listed below:
 - a Flight instruments.
 - b Electrical/electronic control panels.
 - c Pilot and Copilot seats.
 - d Observer seat.
 - e Head-up display.
 - f Hatch.
 - g Consoles.
 - h Floor cover.

- 2 Visually examine the passenger compartment and its components listed below:
 - a Wardrobes.
 - b Passengers seats.
 - c Attendant seats.
 - d Galley and its components.
 - e Lavatory and its components.
 - f Overhead bin.
 - g Life vest.
 - h Placards and lights.
 - i Floor cover.
 - j Headline, windscreens, and sidewall lining panels.
 - k Doors.
 - l Closets.
- 3 Visually examine the baggage compartment for signs of volcanic ash contamination.

K. Follow-on

SUBTASK 842-002-A

- (1) Do the pressurization control system functional test in automatic mode (AMM TASK 21-31-00-700-802-A/500), and the functional test of outflow valves (AMM TASK 21-31-00-700-804-A/500).
- (2) Do the operational test in manual mode of the pressurization control system (AMM TASK 21-31-00-700-801-A/500).
- (3) Do the test of the overpressurization relief devices with a pressurization test bench (AMM TASK 21-31-00-700-807-A/500).
- (4) Do the functional test of the cabin pressure acquisition module (**AMM TASK 21-32-01-700-801-A/500**).
- (5) Do the operational check of the ram air valve (**AMM TASK 21-25-01-700-801-A/500**).
- (6) Do the operational test of the cooling pack system (AMM TASK 21-51-00-700-802-A/500).
- (7) Do the operational test of the temperature control system (**AMM TASK 21-60-00-700-801-A/500**).
- (8) Do the functional test of the cooling pack system (AMM TASK 21-51-00-700-803-A/500), or (AMM TASK 21-51-00-700-805-A/500), as applicable.



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

- (9) Do the operational test of the electronic compartment ventilation system ([AMM TASK 21-26-00-700-801-A/500](#)).
- (10) Do the operational test of the conditioned air distribution system ([AMM TASK 21-20-00-700-801-A/500](#)).
- (11) Supply clean bleed air through the APU for 5 minutes ([AMM TASK 36-00-00-860-802-A/200](#)), to clean the pressure regulator valves, check valves and vacuum pump.
- (12) Install the panels or others items possibly removed for the inspection above.
- (13) Put the aircraft back to its initial condition.