
POWERPLANT - MAINTENANCE PRACTICES

EFFECTIVITY: ALL

1. General

- A. This section gives the precautions and operation limitations for the engine ground operation during the aircraft maintenance.

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2. Ground Safety Precautions

- A. Be careful during the engine operation to prevent injury to the persons and damage to the material. Some of the general safety items are given below. Other precautions will be added when applicable to the maintenance procedures.

- WARNING:** • DURING THE START PROCEDURES, MAKE SURE THAT THERE IS A FIRE FIGHTER (OUTSIDE OBSERVER), WHO FULLY KNOWS IGFER, SECTION 7, WITH A FIRE EXTINGUISHER (CO₂) NEAR THE AIRCRAFT TO MONITOR THE ENGINE OPERATION. USE THE REAR INTERPHONE SYSTEM (RAMP) FOR COMMUNICATIONS BETWEEN THE COCKPIT AND THE OUTSIDE OBSERVER.
- THE GROUND CREW MUST STAY AT A SAFE DISTANCE FROM THE AIR INTAKE AND EXHAUST AREAS DURING THE START AND GROUND-RUNNING OPERATIONS.
 - DO NOT PERMIT THE EXHAUST GASES TO TOUCH YOUR EYES AND SKIN AND DO NOT BREATHE THEM TO PREVENT RESPIRATORY IRRITATION.
 - DURING THE ENGINE OPERATION, USE A DEVICE FOR EAR PROTECTION. A VERY HIGH NOISE CAN CAUSE DAMAGE TO THE EARS.
 - IF YOU MUST DO TASKS WITH A HEATING GUN, OBEY THE SAFETY PRECAUTIONS GIVEN IN (WM 20-10-00). EXPLOSION CAN OCCUR IF YOU USE AN INCORRECT HEATING GUN NEAR FLAMMABLE MATERIAL OR FUEL VENT.
 - DO NOT OPERATE THE ENGINE NEAR FLAMMABLE MATERIALS OR FUEL VENT. EXPLOSIONS CAN OCCUR.
 - THE ENGINE IGNITION SYSTEM CAUSES HIGH ENERGY. THIS ENERGY MAKES THE SYSTEM A DANGEROUS SOURCE OF ELECTRICAL SHOCK. DEATH CAN OCCUR UNLESS THE PRECAUTIONS ARE OBEYED. DO NOT DO MAINTENANCE TASKS ON THE ENGINE IGNITION SYSTEM WHEN IT IS ON.
 - ALL JET FUEL AND LUBRICATING OILS CAUSE INJURY TO THE SKIN. DO NOT PERMIT THESE FLUIDS TO TOUCH YOU.
 - DO NOT TOUCH THE EXHAUST DUCT AND ENGINE COMPONENTS UNTIL THEY ARE COOL. THE TEMPERATURE CAN STAY HOT FOR A LONG TIME AFTER THE ENGINE STOPS.
 - IF THE FIRE BOTTLES DISCHARGE, DO NOT BREATHE THE HALON GASES, DO NOT LET HALON COME ON YOUR SKIN OR IN YOUR EYES, AND CLEAN THE AREA. MAKE SURE THAT THE AREA HAS A GOOD FLOW OF AIR. HALON GASES CAN CAUSE IRRITATION TO THE SKIN AND EYES.
 - MAKE SURE THAT THE LANDING GEAR SAFETY PINS ARE INSTALLED ([AMM TASK 32-00-01-910-801-A/200](#)).
 - MAKE SURE THAT THE TECHNICIAN IN THE COCKPIT HAS FULL ACCESS TO THE BRAKES AND THRUST CONTROL LEVERS IF AN EMERGENCY ENGINE SHUTDOWN OR BRAKING IS NECESSARY BECAUSE OF A SUDDEN MOVEMENT OF THE AIRCRAFT.
 - MAKE SURE THAT THE TECHNICIAN IS TRAINED AND IS PREPARED TO DO THOSE PROCEDURES.
 - MAKE SURE THAT THE RUN-UP SURFACE ON WHICH THE AIRCRAFT IS PARKED IS LEVEL AND FREE OF ICE, OIL, SAND OR OTHER MATERIAL CONDITIONS THAT CAN DECREASE THE TIRE-TO-GROUND ADHERENCE OR CAUSE THE WHEEL CHOCKS NOT TO HOLD THE AIRCRAFT.

- **DO NOT PARK THE AIRCRAFT NEAR BARRIERS OR OBSTACLES.**

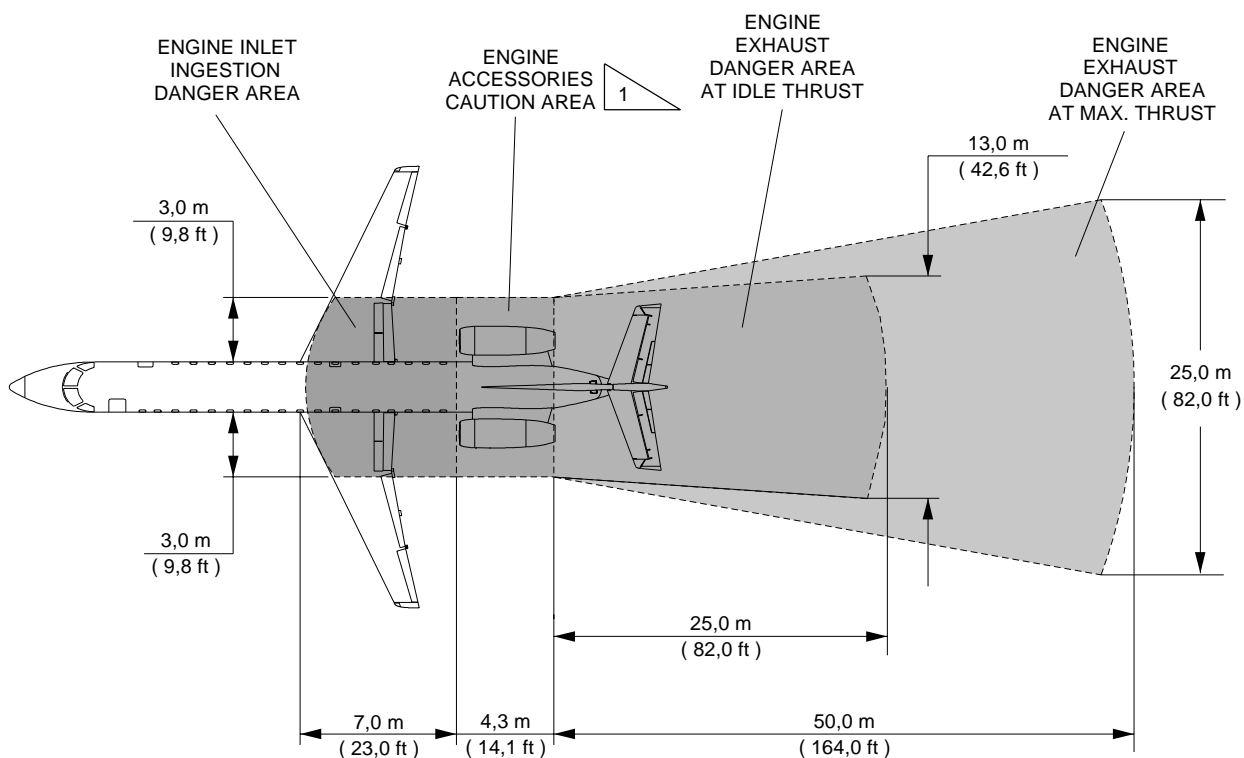
CAUTION: • DO NOT DO THE POWER-BACK OPERATION DURING MAINTENANCE PROCEDURES IF THE THRUST REVERSER IS INSTALLED.

- THE AIRCRAFT MUST HAVE ALL WHEELS WITH CHOCKS INSTALLED, THE PARKING BRAKE SET, AND THE NOSE LANDING GEAR AT ITS CENTER POSITION.
- MAKE SURE THAT THE VEHICLES AND SUPPORT EQUIPMENT ARE AWAY FROM THE AIRCRAFT FRONT AND ADJACENT AREAS.
- KEEP THE AREA ADJACENT TO THE AIRCRAFT CLEAN, WITHOUT STONES, CLOTHES, TOOLS OR OTHER OBJECTS OR FLUIDS WHICH COULD GO INTO THE ENGINE (REFER TO FIGURES 201 OR 202).
- KEEP THE EXHAUST DUCT AND EXHAUST AREA CLEAN, WITHOUT OIL, GREASE, FUEL, AND OTHER FLAMMABLE MATERIALS.

EFFECTIVITY: EMB-145() MODELS

Danger Areas

Figure 201



AIRCRAFT STATIC – SEA LEVEL I.S.A – NO WIND



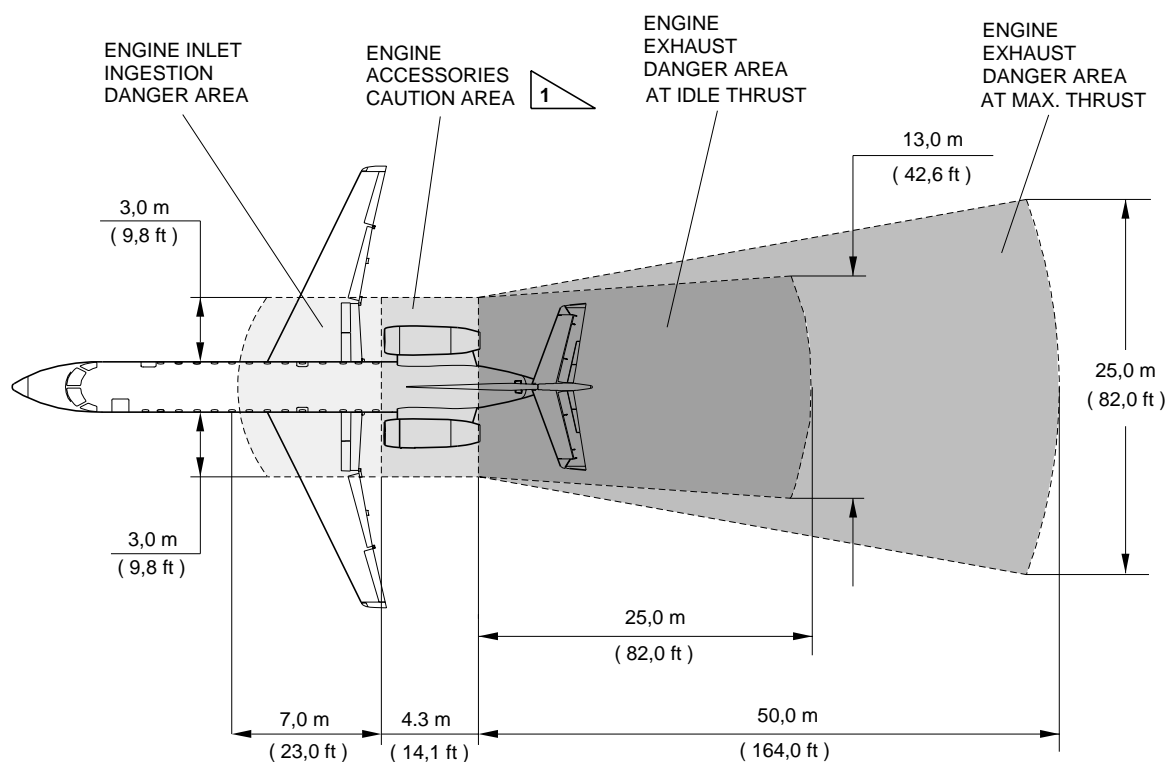
WITH THE ENGINE RUNNING, THE ACCESS TO THIS AREA IS PERMITTED JUST WITH THE ENGINE IN IDLE SPEED OR LESS.

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EFFECTIVITY: EMB-135() MODELS

Danger Areas

Figure 202



AIRCRAFT STATIC - SEA LEVEL I.S.A - NO WIND



WITH THE ENGINE RUNNING, THE ACCESS TO THIS AREA IS PERMITTED JUST WITH THE ENGINE IN IDLE SPEED OR LESS.

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3. Operating Limitations

A. This section gives the engine operating limitations.

(1) ATS Operating Limitations

Table 201 - ATS OPERATING LIMITATIONS

OPERATION PERIOD	COOLING PERIOD
01 MINUTE ^[1]	01 MINUTE
05 MINUTES ^[2]	05 MINUTES

[1] First to fourth cycles. For the following cycles, the cooling period must be 5 minutes.

[2] Starting or Dry Motoring Continuous Operation or Compressor Wash.

(2) Engine Operating Limitations

(a) For engine operating limitations, see the latest revision of Rolls-Royce AE3007A Series Operations Manual CSP30017.

(3) For the aircraft approved fuel, see the latest revision of [AMM MPP 20-30-01/200](#).

