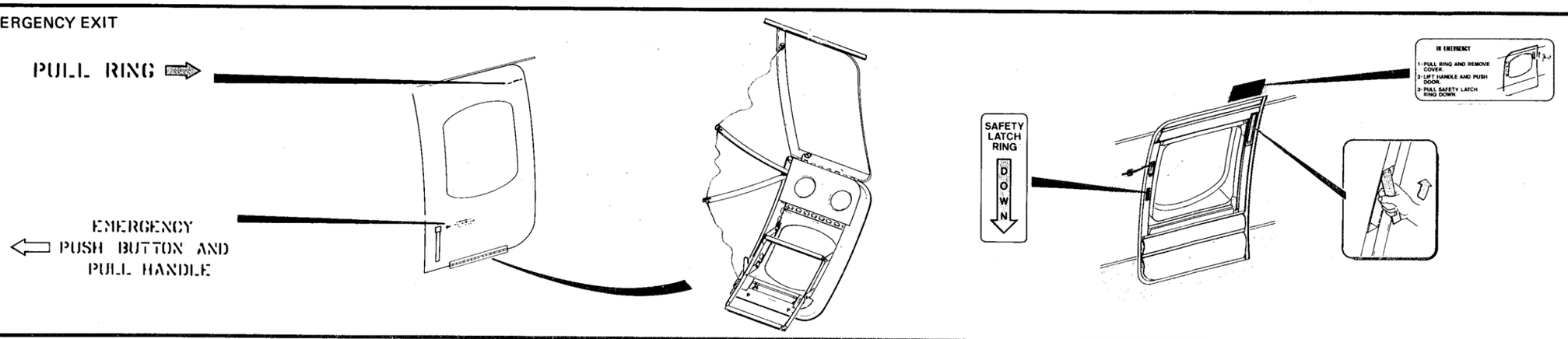
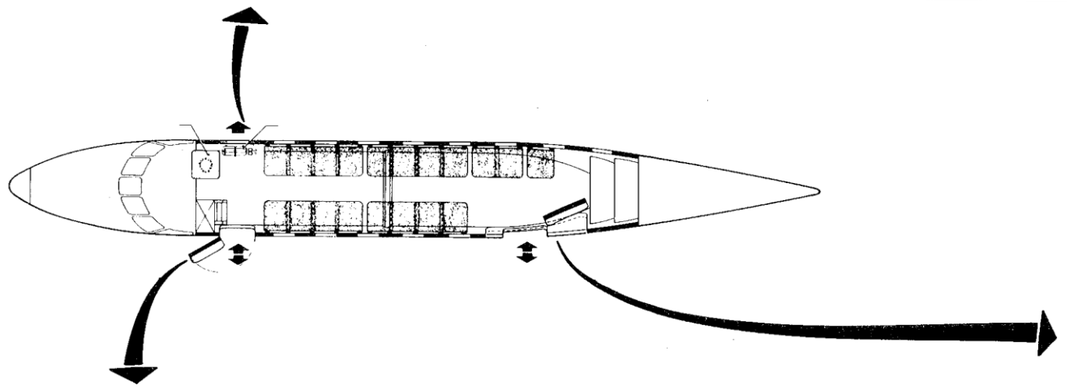
SECTION II

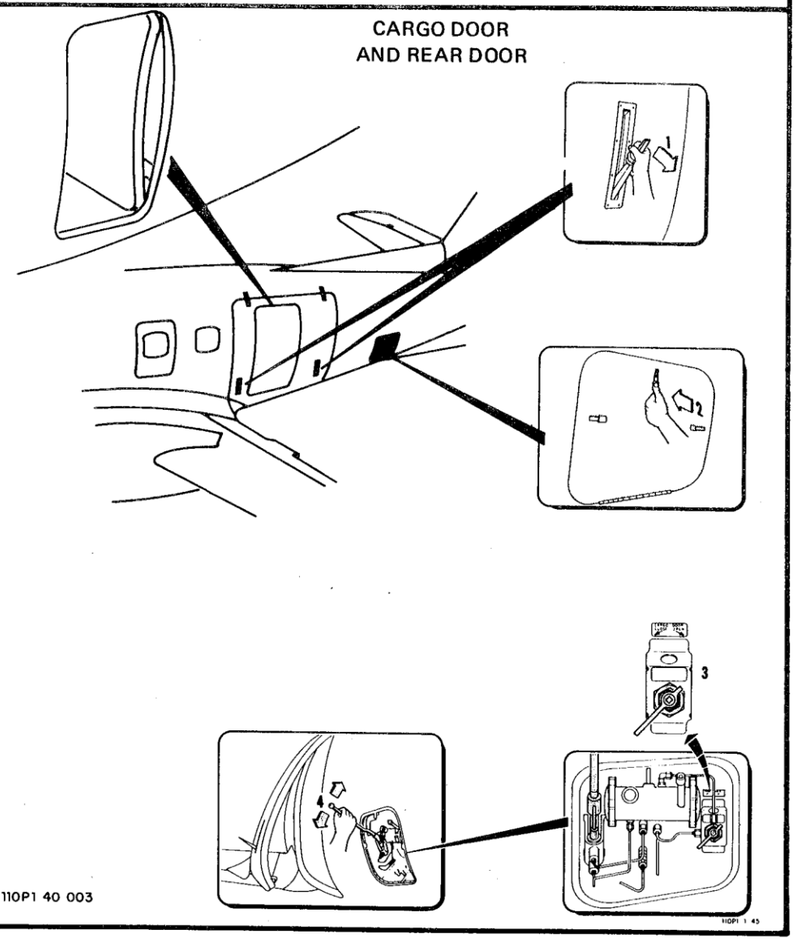
ACCESS DOORS AND EMERGENCY EXITS

EMERGENCY EXIT

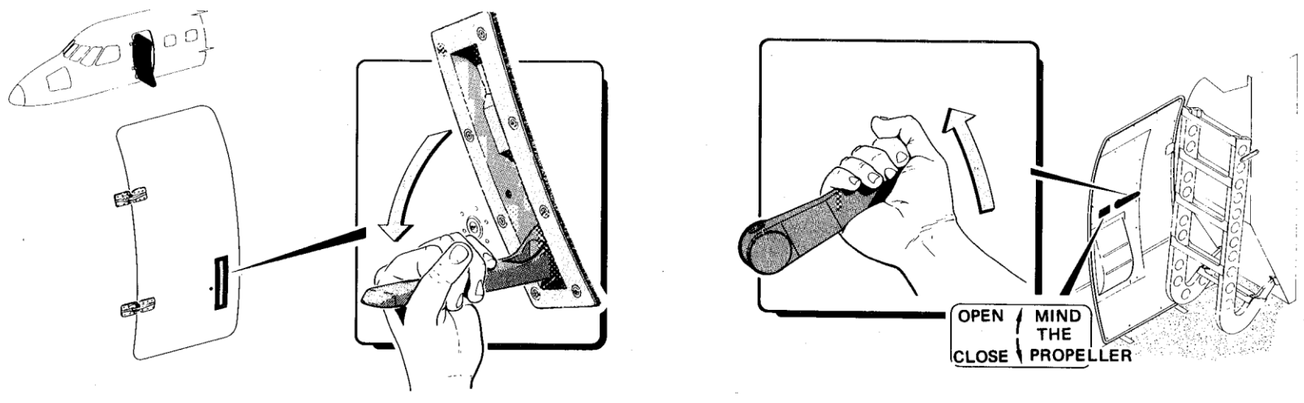




CARGO DOOR
AND REAR DOOR



FRONT DOOR



110P1 40 003

Figure 2-1. Access Doors and Emergency Exits - EMB-110K1

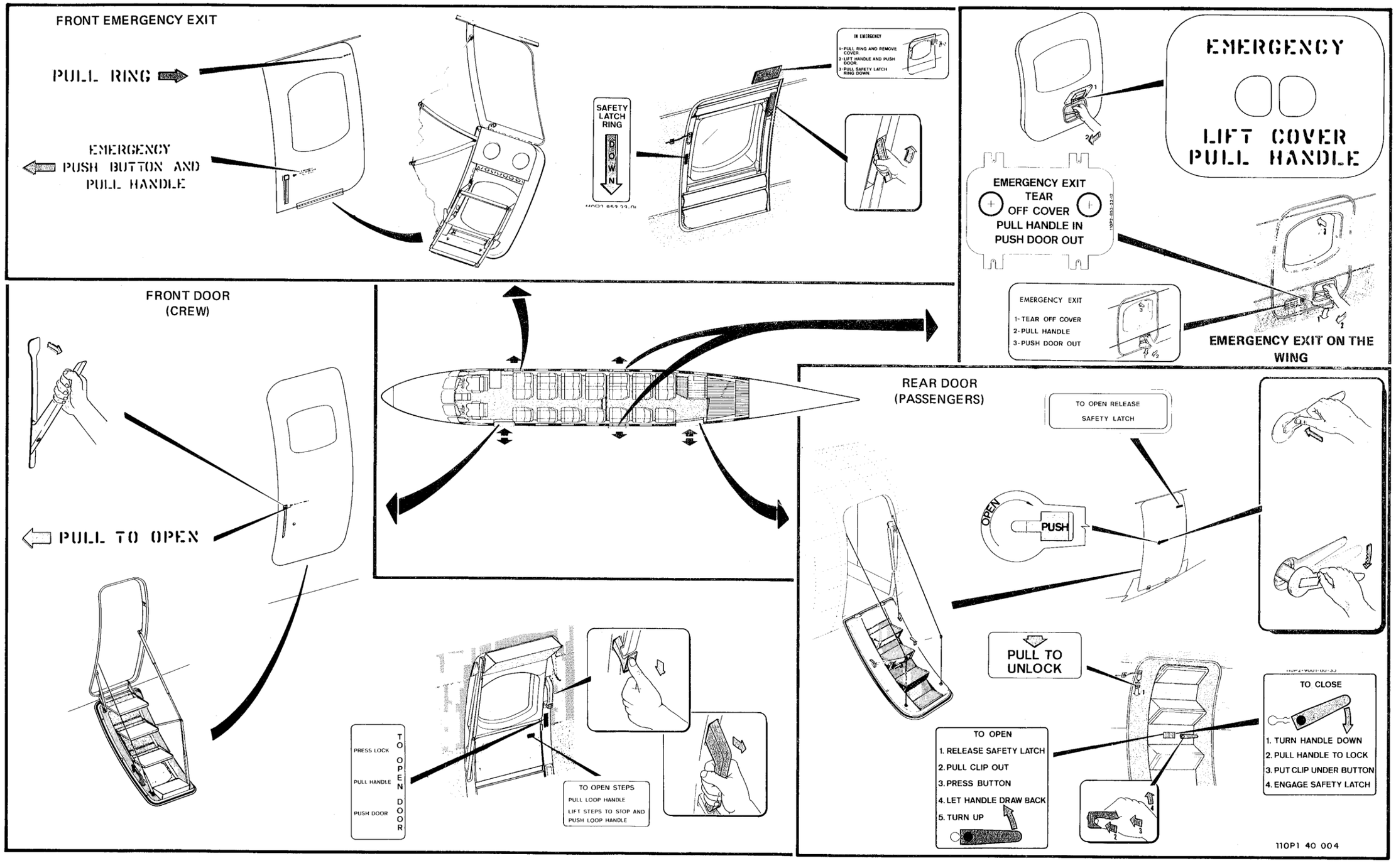


Figure 2-2. Access Doors and Emergency Exits - EMB-110P2

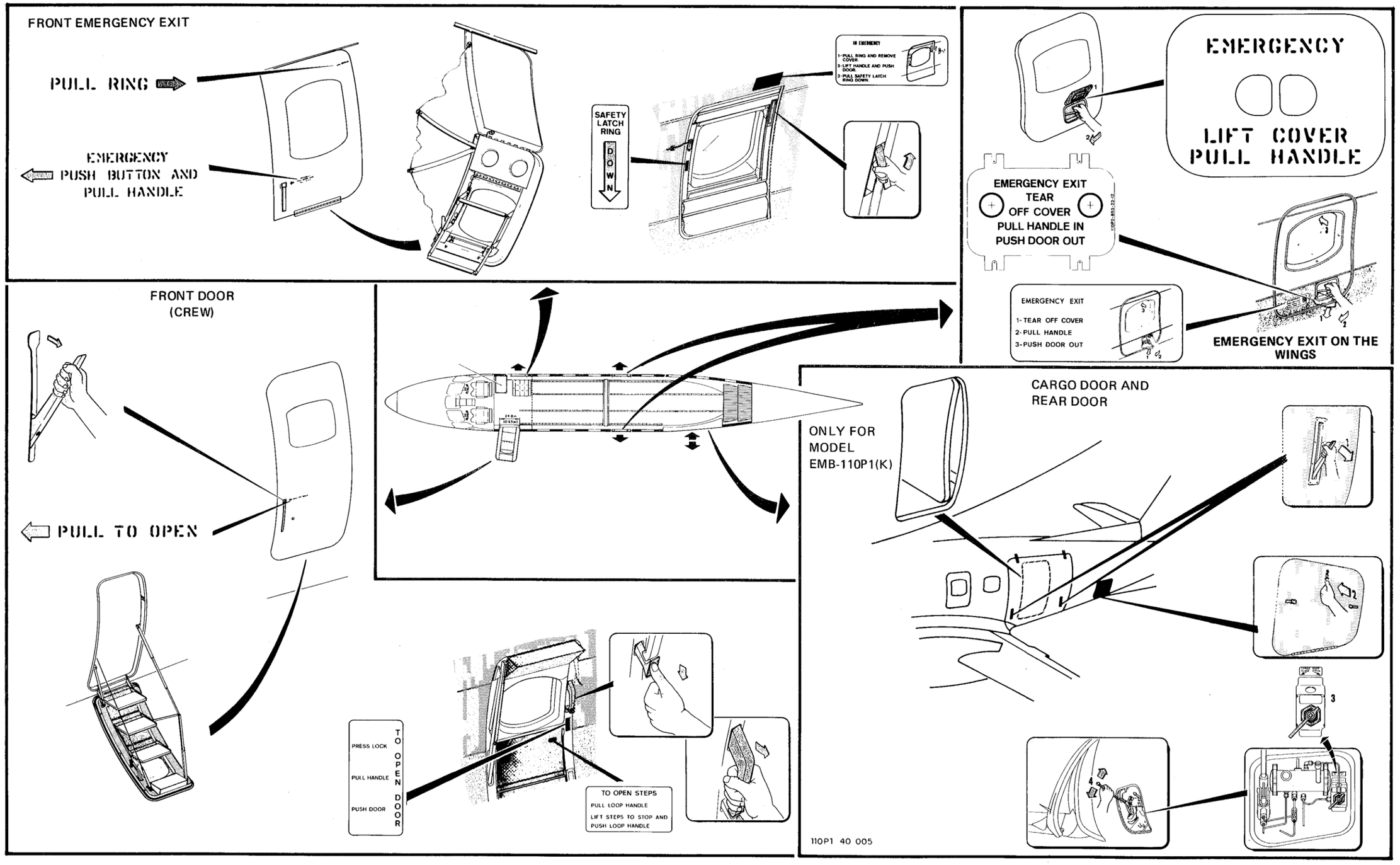


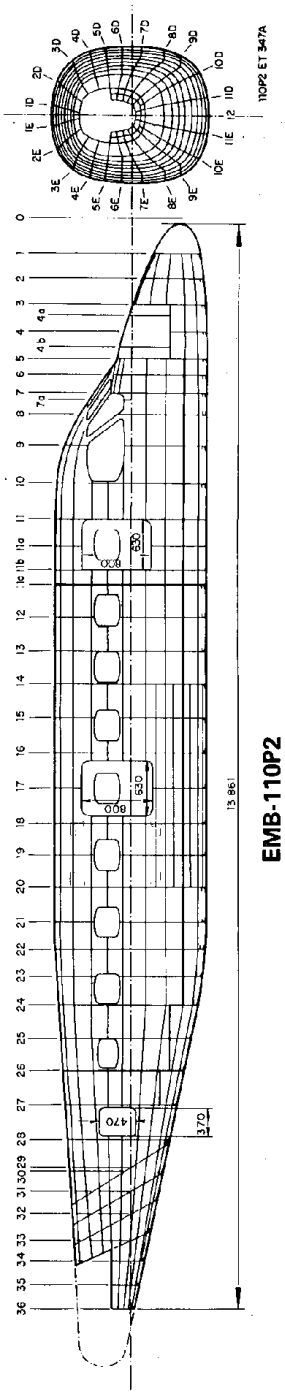
Figure 2-3. Access Doors and Emergency Exits - EMB-110P1 and EMB-110P1(K)

SECTION III

BREAK-IN POINT

3-1. GENERAL

The aircraft is provided with a break-in point to be cracked by the rescue personnel in case of emergency and access to the crew members and passengers become impossible through the doors and emergency exits.
This break-in point is marked on the fuselage right side as shown in figure 3.1.



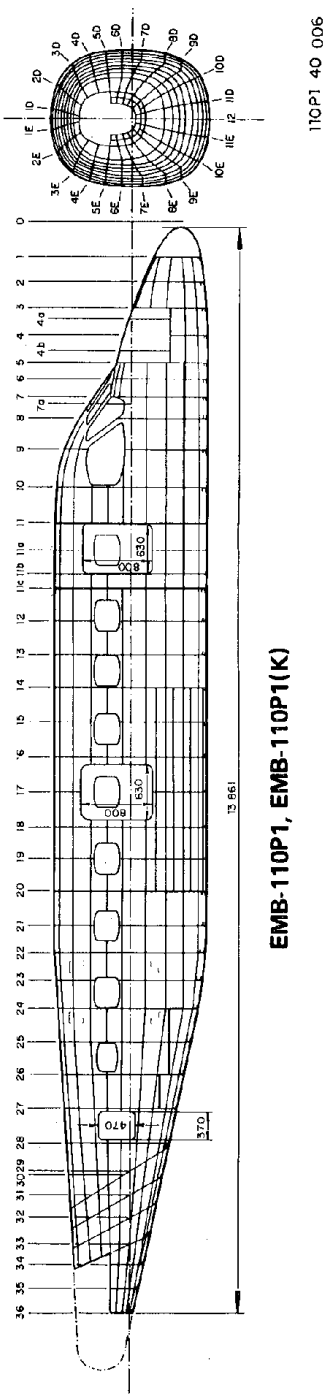


Figure 3-1. Break-In Point

SECTION IV

ACCESS TO EXPLOSIVE AND FLAMMABLE COMPONENTS

4-1. DEFUELING

4-2. PRECAUTIONS

During defueling operations, the following precautions should be taken:

1. Whenever external lighting for defueling operation is required, only explosion-proof lamps should be used. Thus, all light sources being used near the aircraft should be moved away before any defueling operation.

2. Carry out this task only in areas where the fire fighting equipment can be freely displaced and the fire fighting personnel can freely move around.

3. The aircraft must not be defueled inside or within a range of 30 m from hangars.

4. The area selected for the accomplishment of this task should be ventilated and away from environments where fuel vapor may accumulate and away from equipment which may produce flames or sparks.

5. Only the personnel required to perform defueling operations should remain in the aircraft during such operations.

6. A fire extinguisher containing a minimum of 25 kg of carbon dioxide or its equivalent must be available in the surroundings of the aircraft.

7. If enough fuel is spilled to cause a fire hazard, all running engines must be shut down immediately. All personnel should leave the adjoining area, specially on the downwind side of spillage. The area should be isolated.

8. Clothing should be changed immediately if fuel is spilled on servicing personnel. Spilled fuel will deteriorate rubber tires or other rubber goods that are not fuel-resistant.

9. "NO SMOKING" sings should be placed within a radius of 50 ft (15m) from the operation area.

10. Make sure that no high frequency radio transmitter is being operated within a radius of 200 ft (60m) from the aircraft nor radar equipment within a radius of 400 ft (120m).

11. If any fuel splashes into the eyes, wash them immediately with plenty of water, then seek medical services.

12. Ground all support equipment to be used for this task.

4-3. DEFUELING

For aircraft defueling proceed as follows:

1. Provide containers with sufficient capacity to contain all the fuel existing in the tanks. If drained fuel is to be used again, be sure of the absolute cleanliness of the containers.

2. Place containers under each wing defueling caps.

3. Remove defueling cap by pulling the click out and turning assembly counterclockwise 45 degrees; then remove cap from the filler neck.

4. After fuel has been fully collected, install and lock defueling cap.

CAUTION

Check if the "0" ring is correctly installed in its seat when reinstalling the defueling cap.

4-4. ELECTRICAL RACK

The battery is a major source of hazard to the rescue teams in case certain safety measures are not observed in relation to the operational limits. Thus, proper precautions should be taken upon aircraft accidents, removing the battery when required.

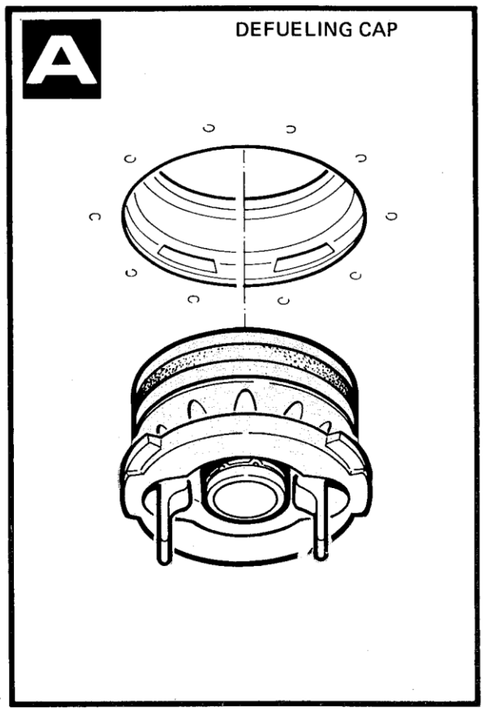
WARNING

Battery temperature should not exceed 180°F (82.2°C), otherwise it may explode.
For battery removal, do as follows:

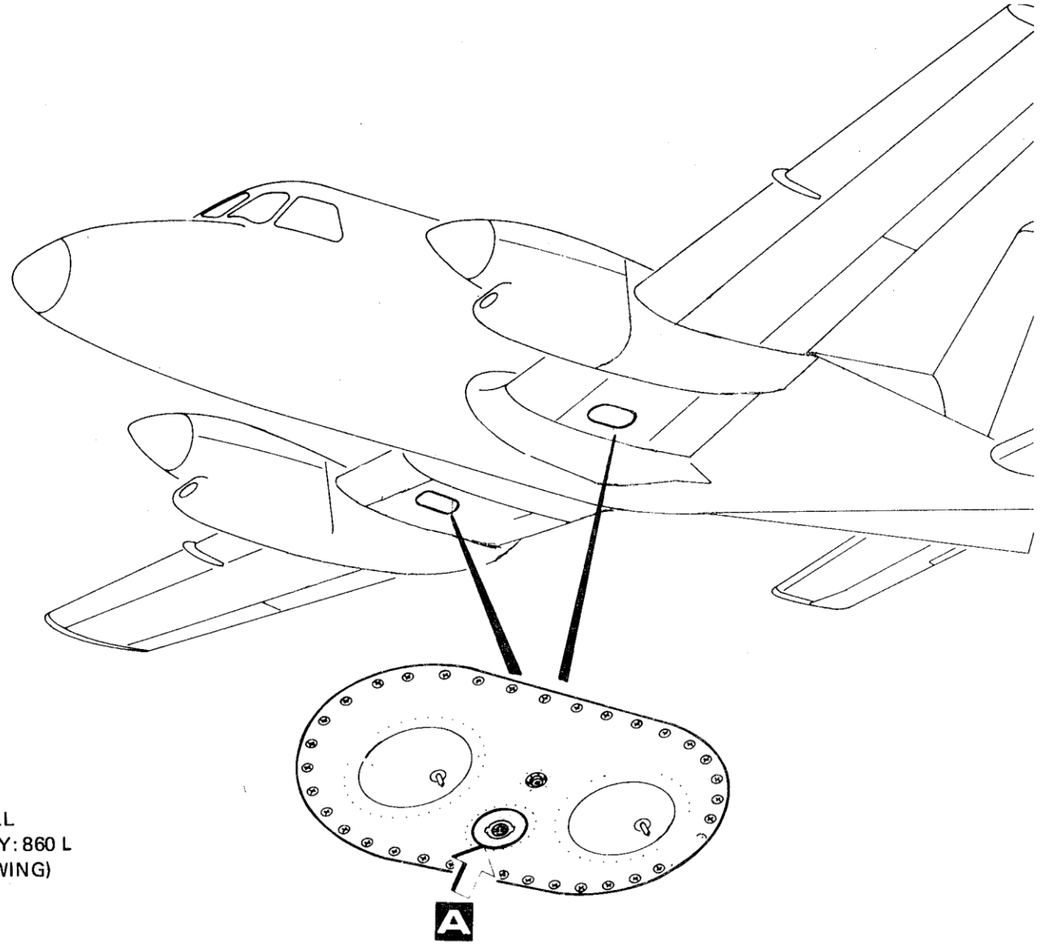
1. Gain access to the battery, in the electrical rack, by removing the skin plates.

2. Turn off the battery connector by breaking its lockwire and turning it counterclockwise.

3. Release existing connections and nuts and remove the battery from the aircraft.



SEE DEFUELING
INSTRUCTIONS ON
PAGE 4-2



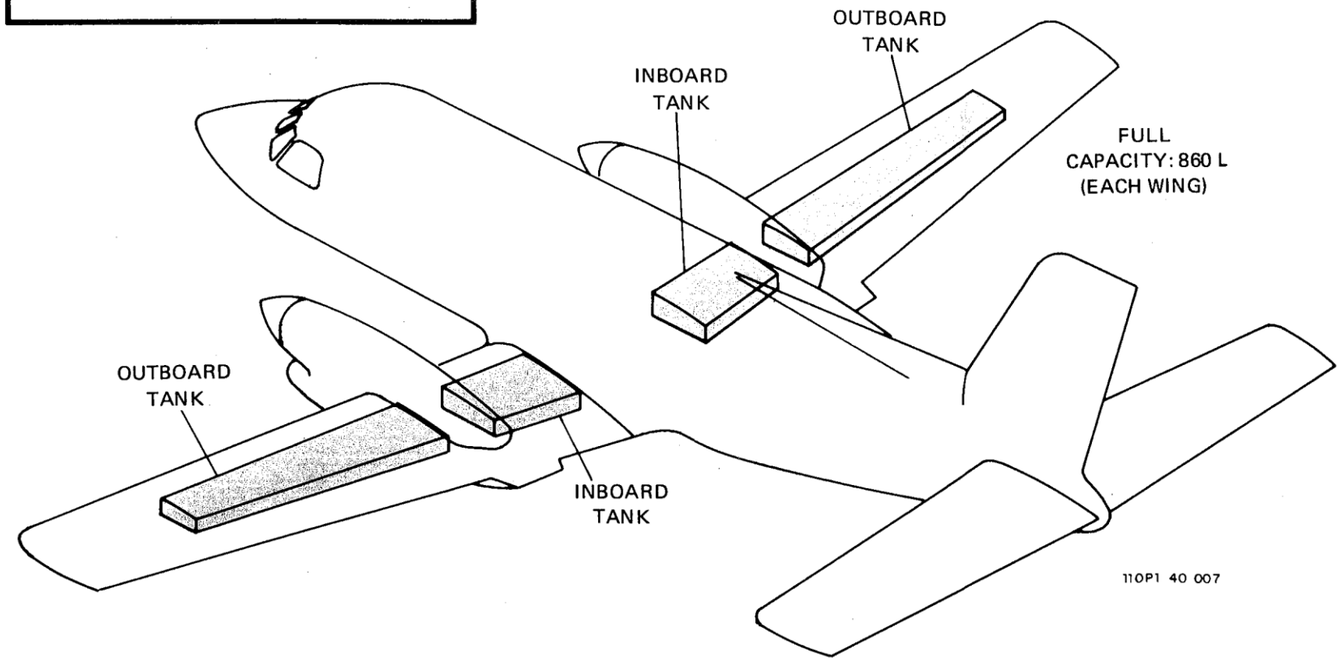


Figure 4-1. Fuel Tanks, Defueling

4-5. HYDRAULIC RESERVOIR

The hydraulic reservoir located in the fuselage rear right side, as per figure 4-2.

4-6. OXYGEN CYLINDER (OPTIONAL)

4-7. HANDLING CYLINDERS PRECAUTIONS

1. Do not handle cylinders (or other components of the system) with hands or clothes dirty with flammable material such as fuel, oil, grease, hydrocarbons or other material which causes or accelerates fire.

2. Carry out this task only in areas where the fire fighting equipment can be freely displaced and the fire fighting personnel can freely move around.

3. A fire extinguisher containing a minimum of 55 lb (25 Kgf) of carbon dioxide or its equivalent should be available in the immediate surroundings of the aircraft and/or of the equipment being used.

4. "NO SMOKING" signs should be placed within a radius of 50 ft (15m) from the operation area.

4-8. PROCEDURES FOR REMOVAL OF OXYGEN CYLINDERS

1. Locate the aircraft oxygen cylinder on the right side next to the bulkhead which divides central fuselage and tail cone, and proceed as follows:

a. Loosen high pressure hose (1) by means of its hex nut.

b. Loosen low pressure hose (2) by means of its hex nut.

c. Loosen the control handle cable attachment pin (3).

d. Loosen clamps (4) and remove the cylinder from the aircraft.

2. Locate the portable system oxygen cylinders placed one on each side of the cockpit, and do as follows:

a. Close the valves of each cylinder, if open.

b. Loosen clamps that secure cylinders and remove the cylinders from the aircraft.

3. Locate the two cylinders (EMB-110K1 and in ferry-flight missions) located in the right side of the center section fuselage, after the electrical rack, and do as follows:

a. Close the valve of each cylinders, if open.

b. Loosen clamps which attach the cylinders and remove them from the aircraft.

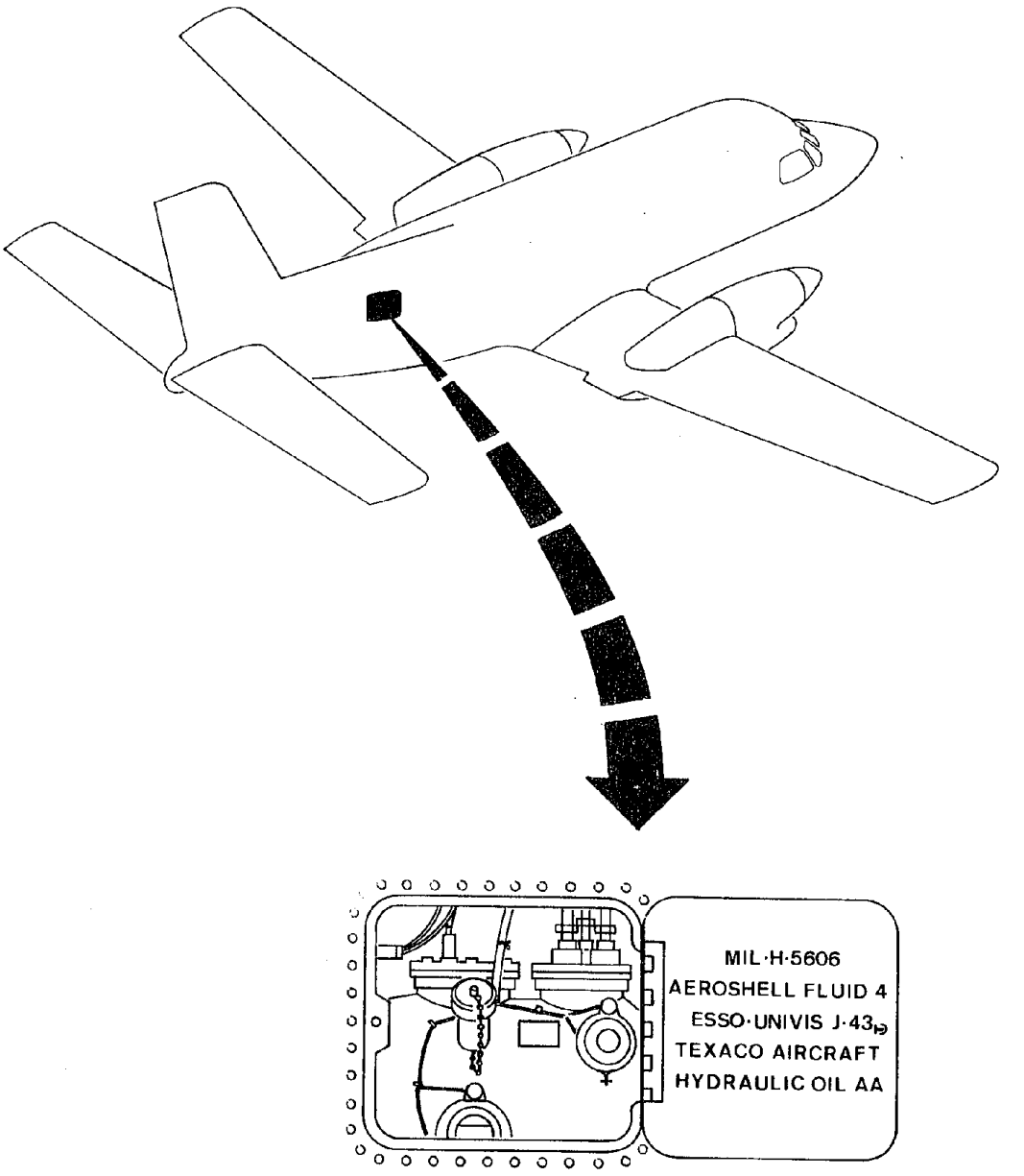


Figure 4-2. Hydraulic Reservoir

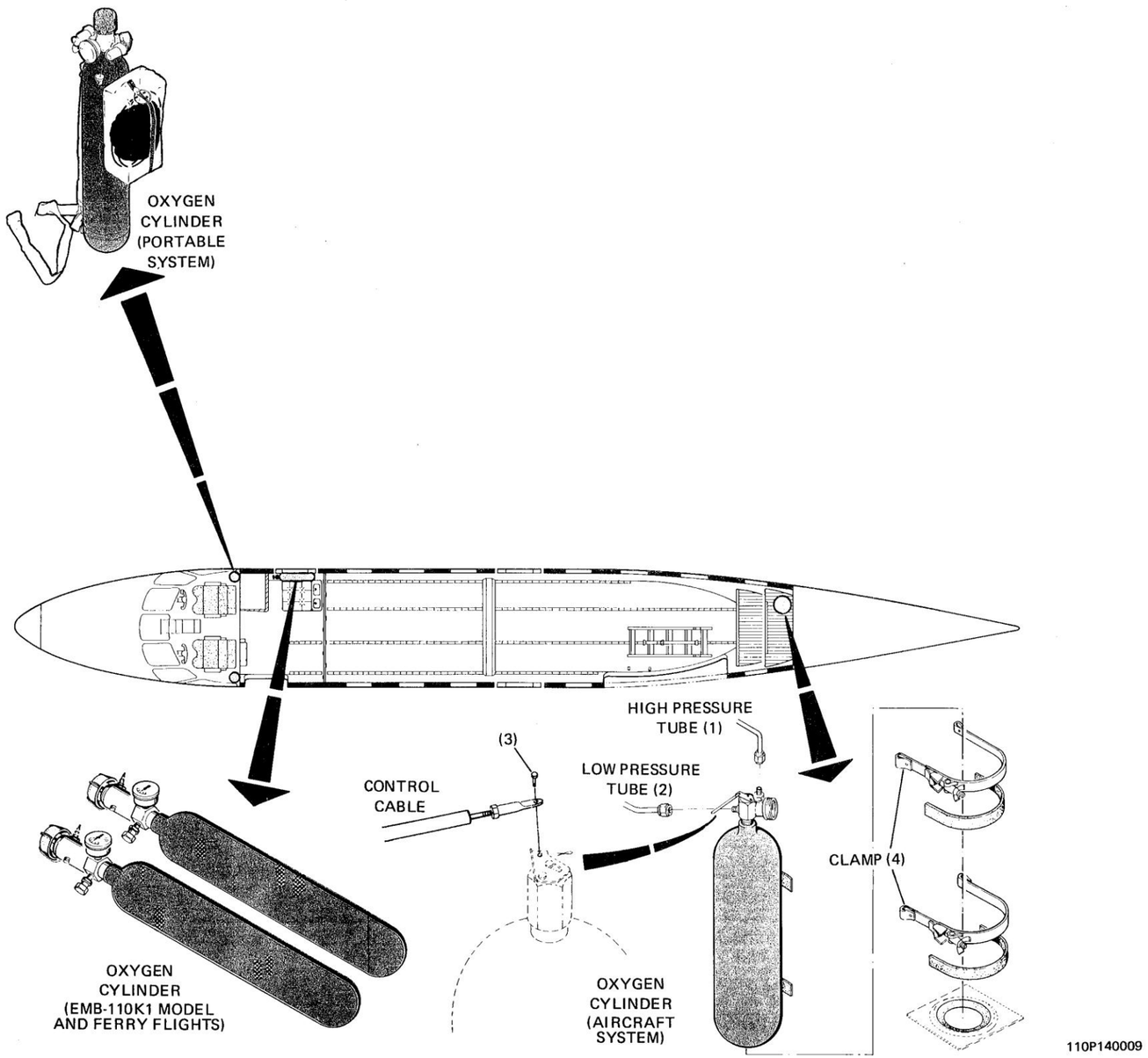
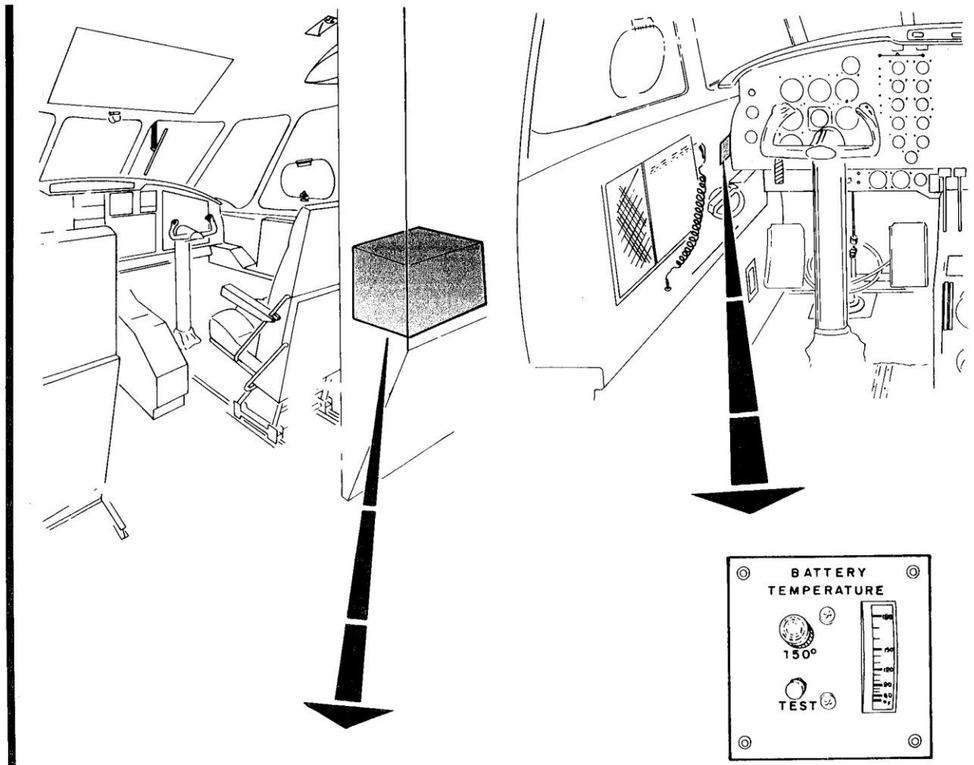
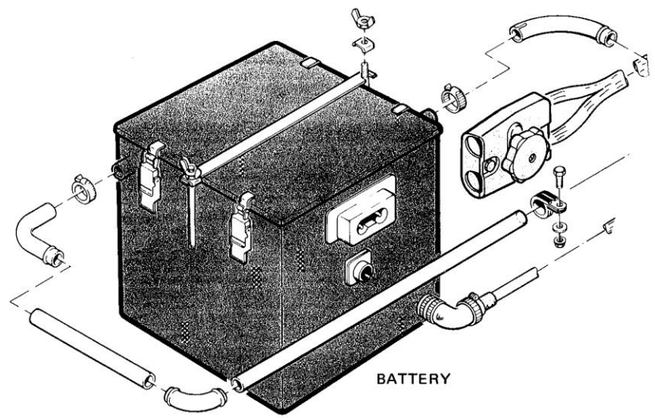


Figure 4-3. Location of Oxygen Cylinders


BATTERY
TEMPERATURE
150°
TEST


BATTERY

SECTION V
OPERATIONS IN THE AIRCRAFT INTERIOR

5-1. EMERGENCY PROCEDURES

Upon an aircraft crash, some safety precautions are required so as not to cause additional damages.

5-2 -COCKPIT

1. Control shut-off valve switches, on the main panel to SHUT-OFF position.

2. Control the battery and generators 1 and 2 switches, on the overhead panel, to OFF position.

5-3. FIRE EXTINGUISHERS

In emergency conditions, if necessary, the aircraft is provided with fire extinguishers located in the cockpit, aft of the pilot's seats.

5-4. HATCHET

For operations which require the use of a cutting object, the aircraft is equipped with a hatchet located on the cockpit floor panel, aft of the copilot's seat.

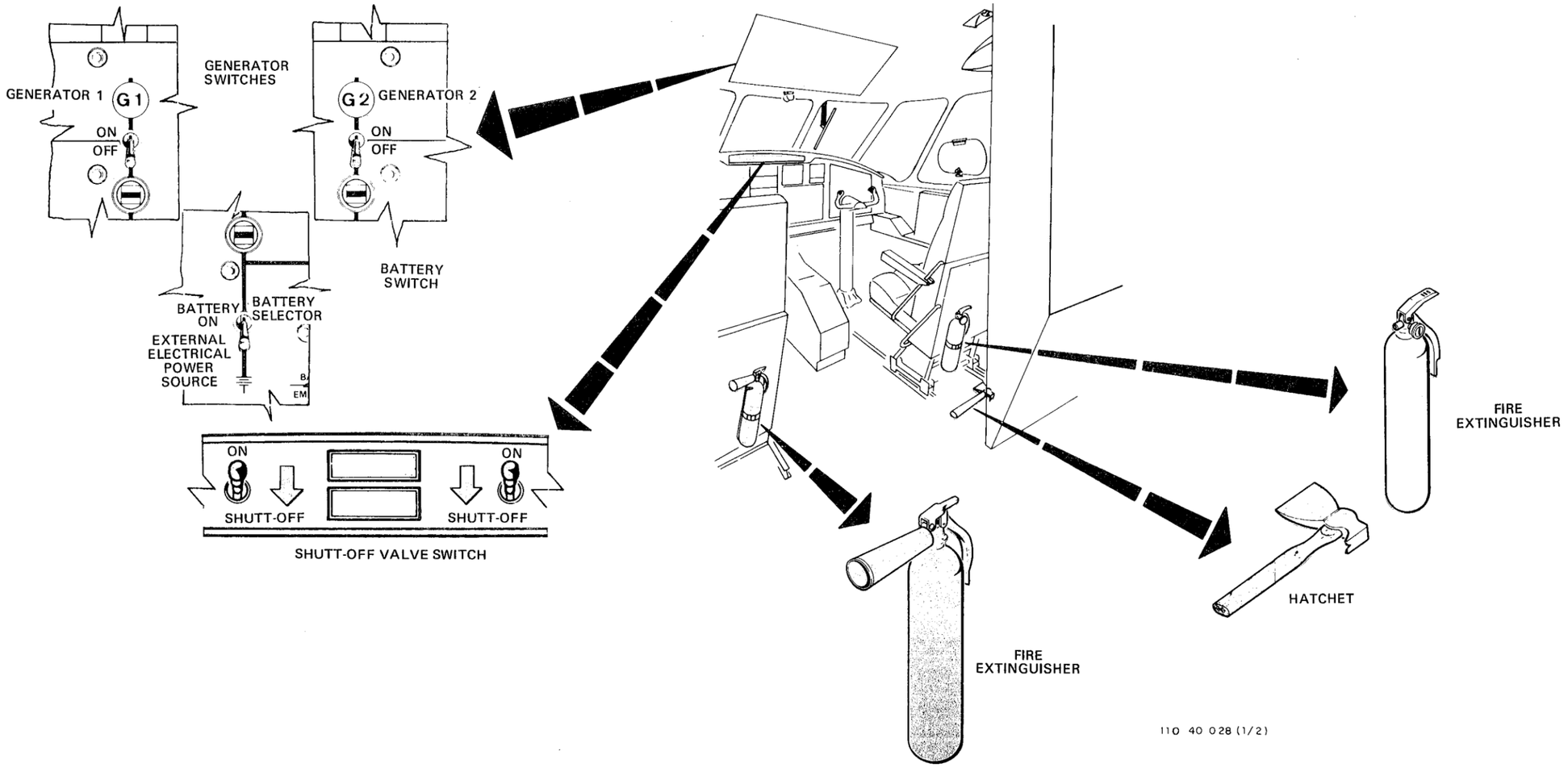


Figure 5-1. Location of Control Panels, Fire Extinguishers and Hatchet

SECTION VI
FIRE FIGHTING

6-1. WHEEL BRAKE FIRE EXTINGUISHING

WARNING

Anyone who approaches the wheel laterally will be exposed to danger, in case of explosion.

The wheel brake fire extinguishing requires the following procedures:

1. Approach the wheel from the rear or from the front only.
2. Extinguish the fire with a jet of bromochloromethane or apply the agent with brief intermittent jets limiting the quantity to the minimum.
3. After extinguishing the fire, cool the brake by spraying it with bromochloromethane.
   Apply successive jets during 3 to 5 seconds, then 15 to 30 seconds, so as to dissipate vapour concentrations.
4. After cooling the brake, allow a minimum of 15 minutes to elapse before moving the aircraft.
5. Replace the wheel and brake assembly.

6-2. ENGINE COMPARTMENT FIRE EXTINGUISHING

WARNING

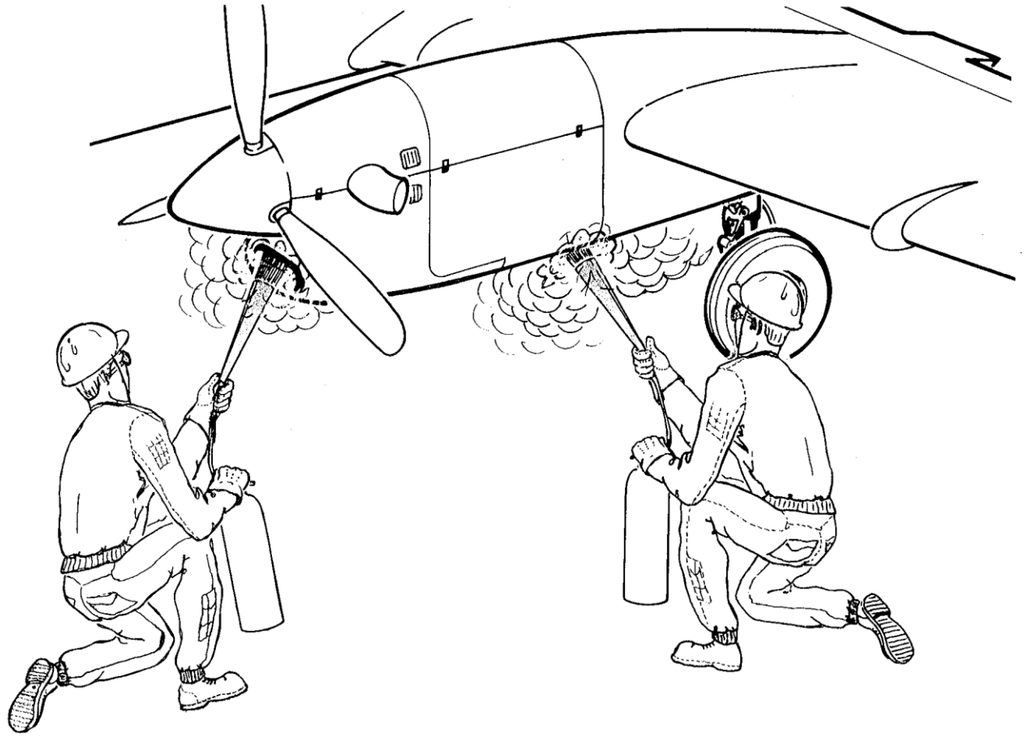
Under any visual evidence or lighting of the fire warning light, evacuate the area around the aircraft and proceed to fire fighting immediately.

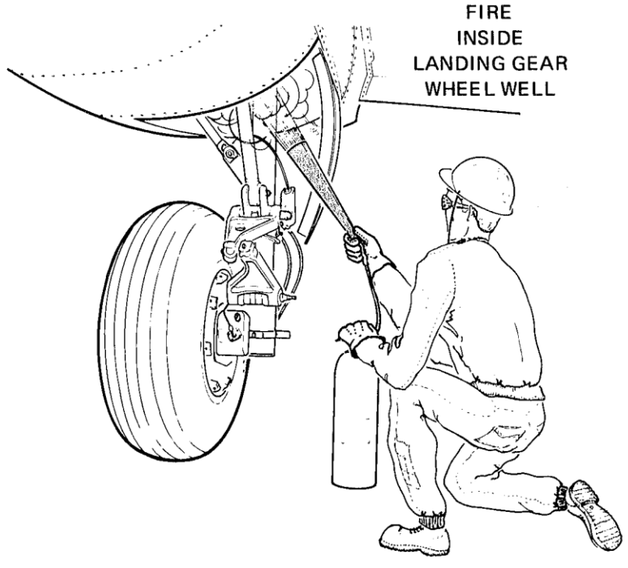
For the engine compartment fire extinguishing do as follows:

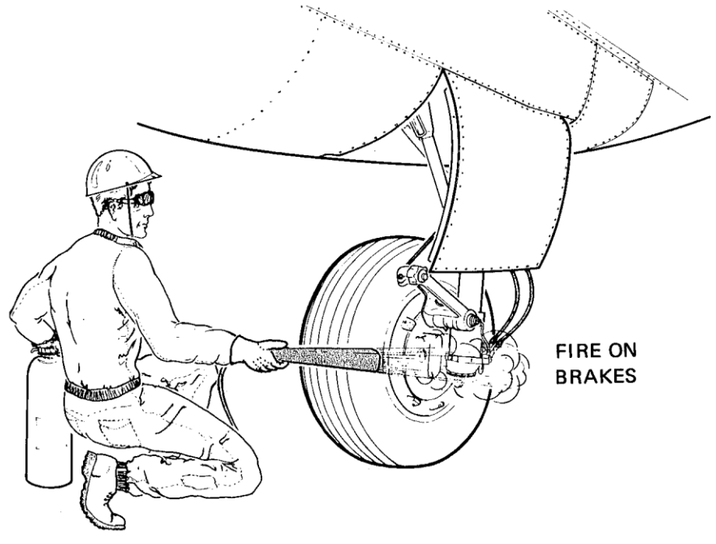
1. Shut the engine down.
2. Actuate the emergency shut-off valve.
3. Position the BAT MASTER switch to OFF.
4. If the fire persists after the propeller has stopped, discharge the extinguishing agent (chemical or CO_2), as shown in the figure.

WARNING

- **Keep away from the propeller.**
- **Do not stand directly in front of the air inlet.**
- **Do not stand directly aft of the exhaust duct.**







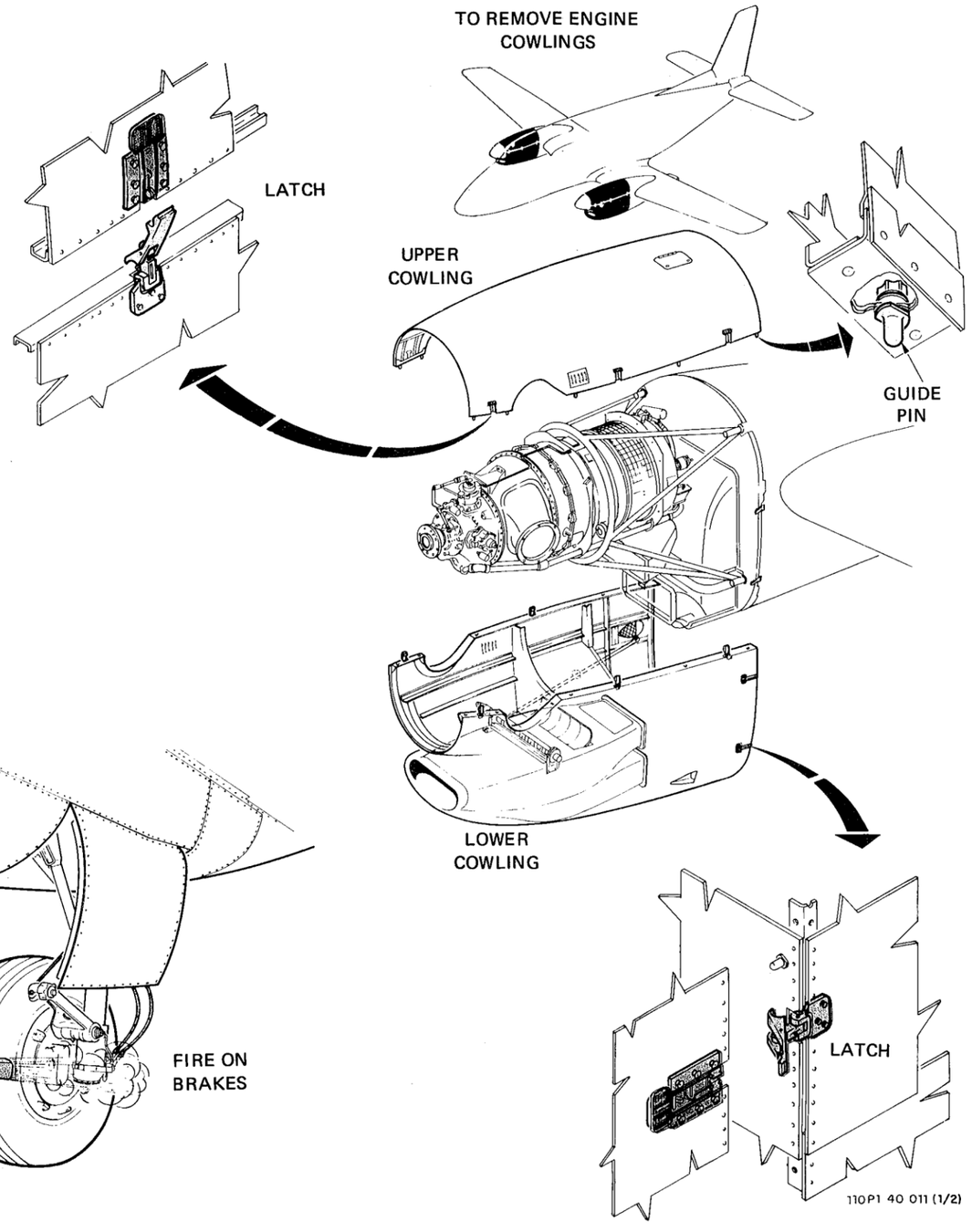


Figure 6-1. Fire Fighting