

# CRASH-FIRE-RESCUE INFORMATION

SERIES 200

PSM 1-82-14

#### **BOMBARDIER INC.**

BOMBARDIER REGIONAL AIRCRAFT DIVISION CUSTOMER SUPPORT 123 GARRATT BLVD., DOWNSVIEW, ONTARIO CANADA M3K 1Y5

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April 10, 1992



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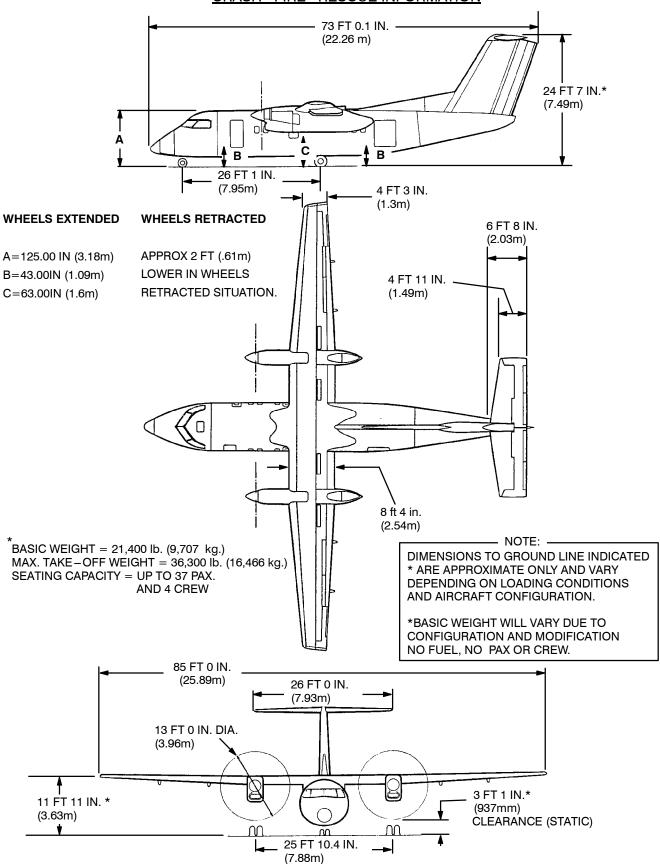


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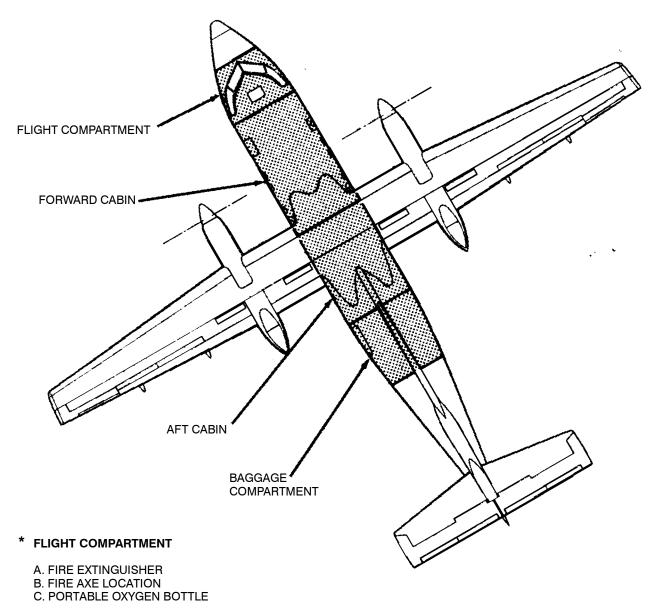
#### CRASH-FIRE-RESCUE INFORMATION



#### **GENERAL ARRANGEMENT**

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#### \* FORWARD CABIN

- A. OXYGEN BOTTLES
- **B. GALLEY LOCATION**
- C. EMERGENCY DOOR-TYPE II
- D. FIRST AID KIT

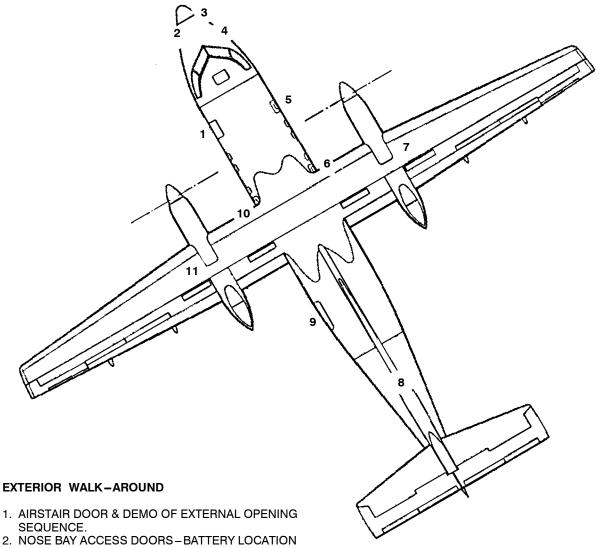
#### \* AFT CABIN

- A. EMERGENCY DOORS-TYPE III
- **B. FIRE EXTINGUISHER BOTTLES**

#### \* BAGGAGE COMPARTMENT

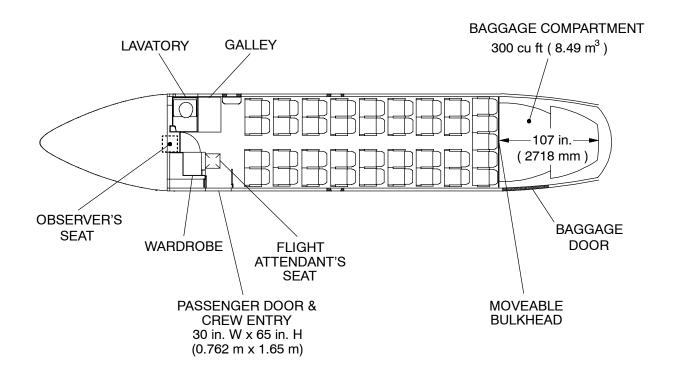
- A. ACCESS TO BAGGAGE COMPARTMENT
- **B. SMOKE DETECTOR**

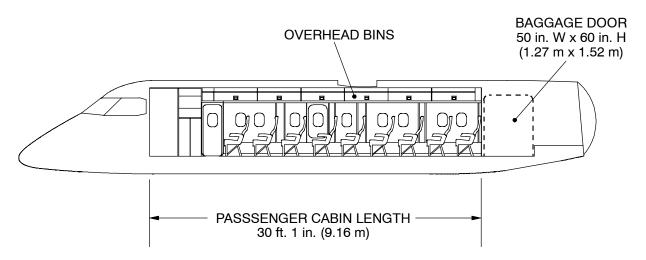
#### **FAMILIARIZATION AND LOCATION GUIDE**



- & MAIN ELECTRICAL CONTACTOR BOX.
- 3. OXYGEN BOTTLE.
- 4. NOSE GEAR WHEEL WELL, NOSE GEAR HYDRAULIC & RESERVOIR.
- 5. TYPE II EMERGENCY DOOR EXTERNAL OPENING SEQUENCE.
- 7. TYPE III EMERGENCY DOOR EXTERNAL OPENING SEQUENCE.
- 8. REAR COMPARTMENT ACCESS DOOR OPENING SEQUENCE & FLIGHT DATA RECORDER & COCKPIT RECORDER LOCATION.
- 9. BAGGAGE COMPARTMENT DOOR OPENING SEQUENCE.
- 10. TYPE III EMERGENCY DOOR EXTERNAL OPENING SEQUENCE.
- 11. NO1. NACELLE, MAIN LANDING GEAR & HYDRAULIC RESERVOIR.

**EXTERIOR WALK-AROUND** 

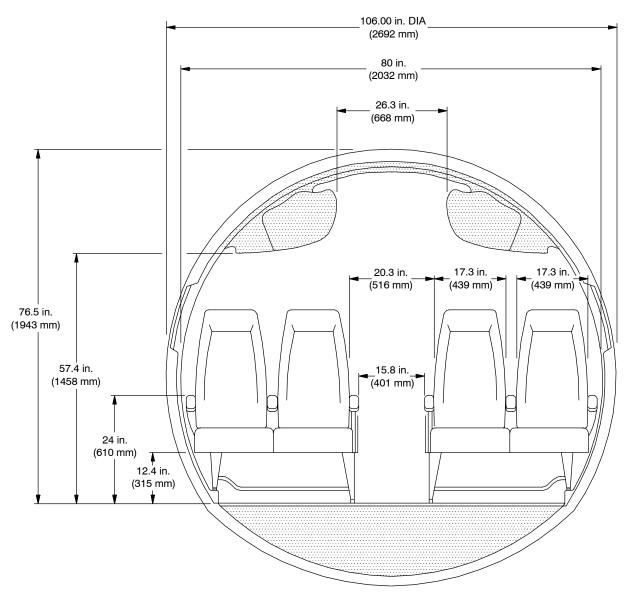




#### **37 PASSENGERS**

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#### **INTERIOR ARRANGEMENT**



#### NOTE:

\* DIMENSIONS ARE APPROXIMATE AND MAY VARY DEPENDING ON AIRCRAFT CONFIGURATION AND LOADING CONDITIONS.

#### **CABIN CROSS-SECTION**

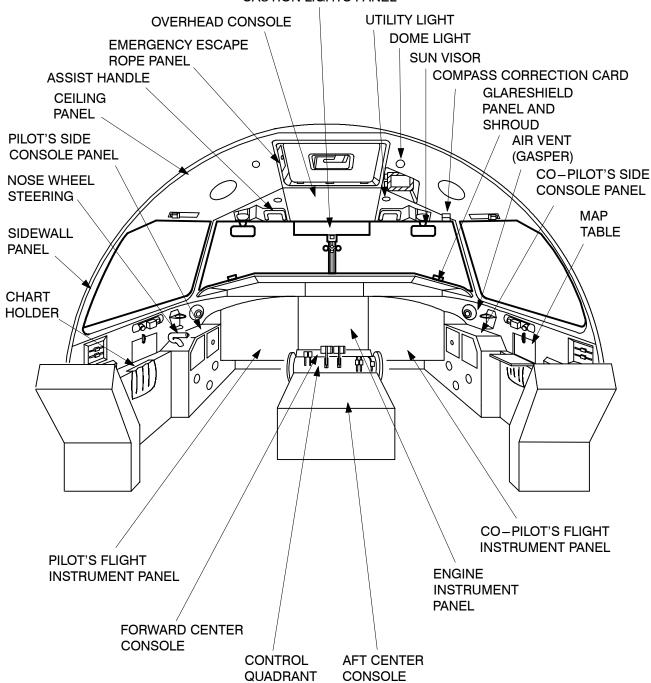
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#### **CAUTION LIGHTS PANEL**



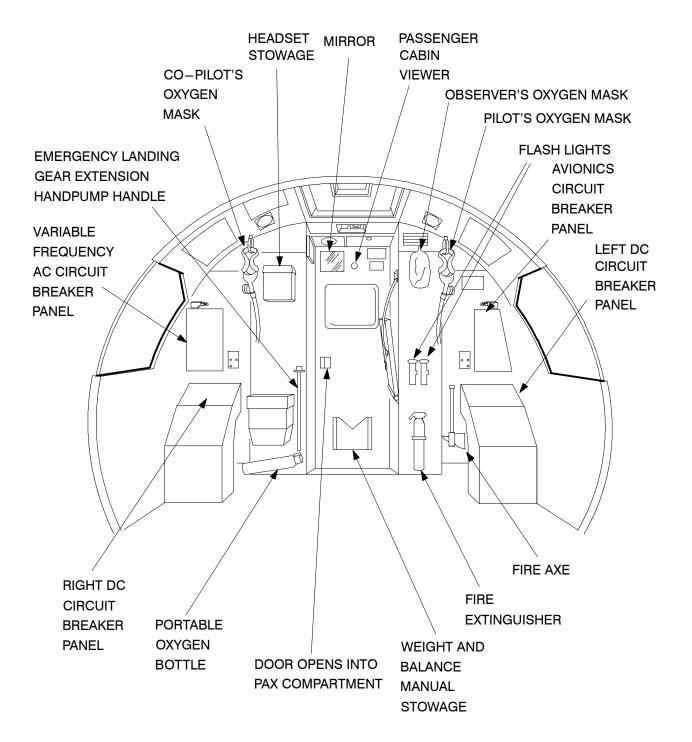
#### FLIGHT COMPARTMENT (VIEW FORWARD)

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#### FLIGHT COMPARTMENT (VIEW AFT)



#### **EXITS**

#### **GENERAL**

There are five emergency exits located on the aircraft. A Flight Compartment Emergency Escape Hatch, available to the flight crew, is located in the Flight Compartment roof and is operated by an internal handle. An Airstair door, located on the forward left side of the fuselage, is operated by internal or external handles. The Airstair door incorporates an inflatable seal fed from the 18 psi deicing system. A Type II emergency exit door is located on the right side of the fuselage, opposite the airstair door. Two Type III emergency exit doors are located one on each side of the fuselage, just forward of the wing. The Type II and Type III emergency exit doors each incorporate a window and may be opened by either internal or external handles located below the window. The Type II and Type III emergency exit doors incorporate a compression seal around the outside of the door to contain aircraft pressurization when the doors are closed.

#### TYPE II AND TYPE III EMERGENCY EXIT DOOR OPERATION

The external handle, located below the window, is flush with the door skin and incorporates a push—button for quick—release, enabling the handle to be rotated. Rotating the handle actuates the locking pin and vent dish by a system of pulleys, a cable and a shaft quadrant. A cable guard is installed over the shaft quadrant. To remove either the Type II or Type III emergency exit door using the external handle, push the quick—release button to release the handle. Turn the handle counterclockwise to open the vent and retract the locking pin. Push the door inward.

#### AIRSTAIR DOOR OPERATION

The Airstair door is opened externally by operation of the door handle lever located on the left side of the fuse-lage just forward of the door. Initial movement of the handle trips the door seal pressurizing valve to release the seal pressure allowing cabin pressure to deplete. Continued movement of the handle moves the door upward and inward to clear the ten pressure pads from their mating stops so that the door may be manually pulled open. Door lowering is assisted by a door counter—balance system.

#### **SERVICE DOORS**

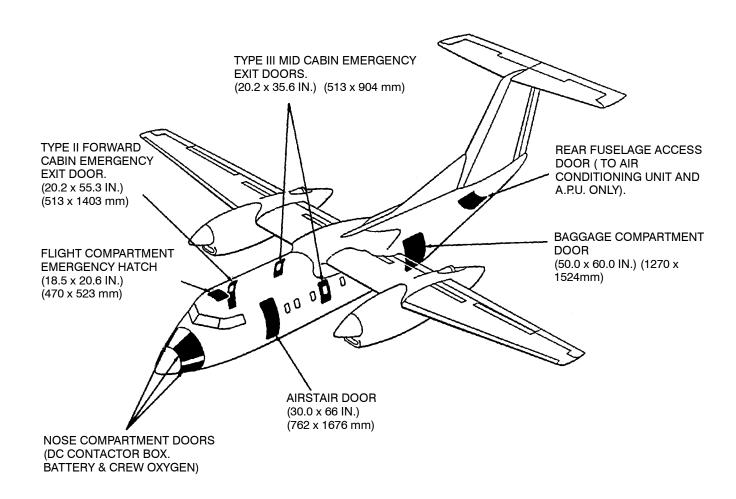
#### **BAGGAGE DOOR OPERATION**

The Baggage door is located on the left side of the rear fuselage. The door is opened and closed manually using an external handle which normally is flush with the door skin. A quick—release button is located in the center of the handle.

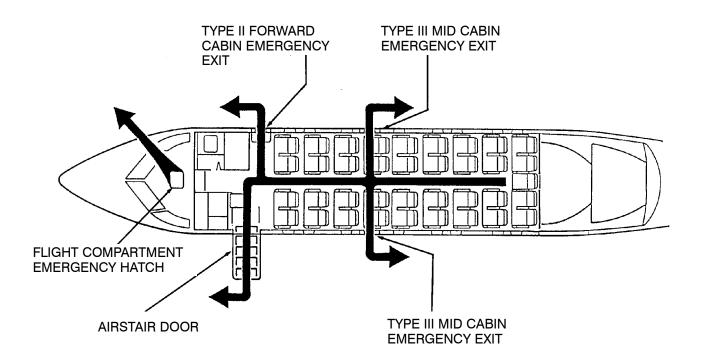
To open the Baggage door, release the handle from the stowed position by pushing the quick—release button. Rotate the handle 180 degrees counterclockwise to unlock the door and initiate an inward and upward movement. Stow the handle by pressing it back into its recess in the door and, while supporting the door, manually raise to the fully open position. Secure the door in the open position by engaging the door support strut.

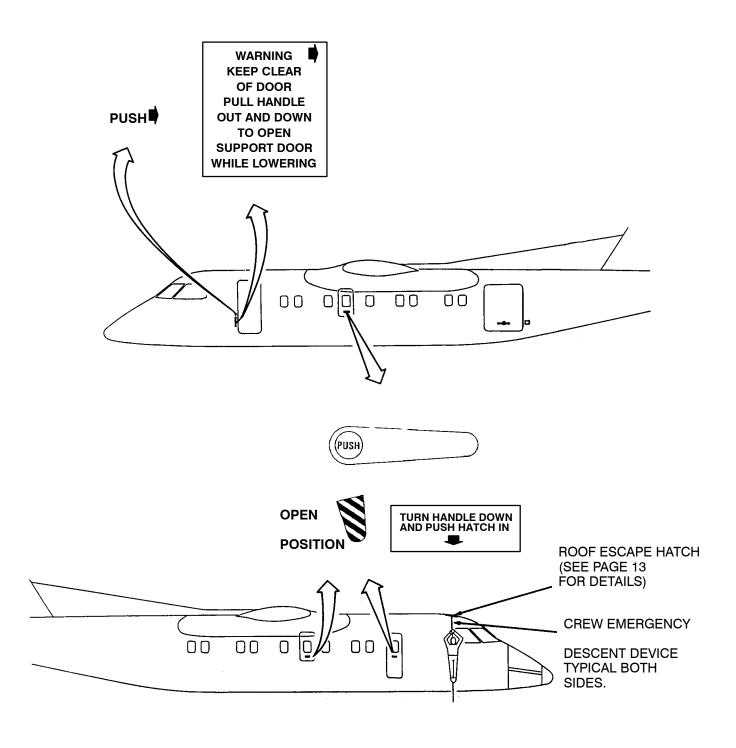
#### NOTE

Cabin compartment emergency entry from the baggage compartment is not normally possible.



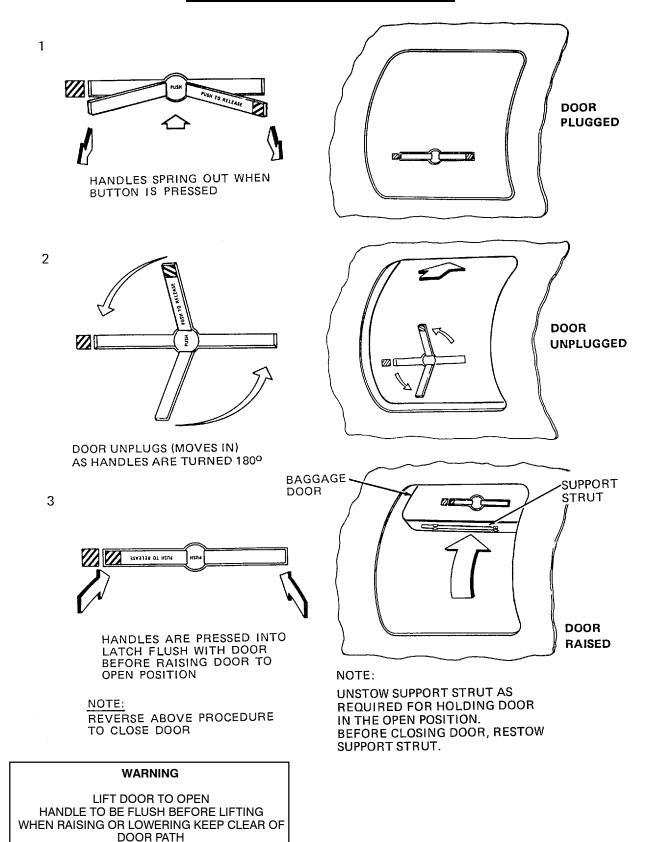
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#### PASSENGER AND CREW ESCAPE SYSTEMS

#### CRASH-FIRE-RESCUE INFORMATION



#### **BAGGAGE DOOR OPERATION**

## CRASH-FIRE-RESCUE INFORMATION

#### FLIGHT COMPARTMENT EMERGENCY ESCAPE HATCH

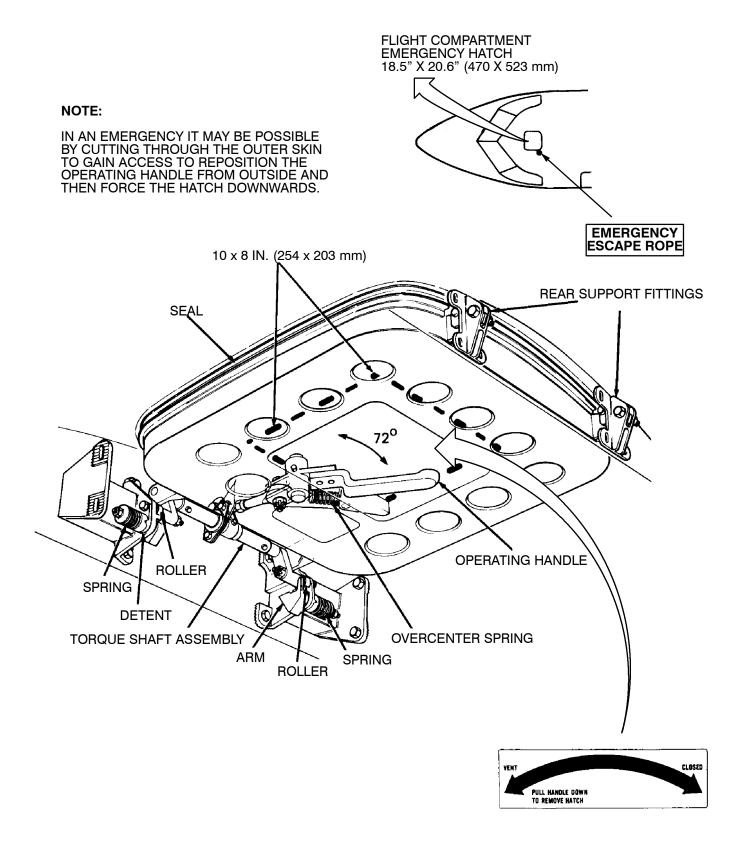
#### **DESCRIPTION**

The Flight Compartment escape hatch, located in the Flight Compartment roof, is completely detachable for emergency exit or can be partially opened for ventilation when the aircraft is on the ground. The hatch is mounted at the rear on two support fittings and at the front by two locking and release fittings. An operating handle, located in the center of the hatch, is retained in an open or closed position by an overcenter spring. The handle operates a transversely—mounted torque shaft assembly with arms attached at each end. Rollers at the end of each arm engage detented locking release fittings installed in the Flight Compartment roof structure. A seal is installed around the edge of the hatch to contain the aircraft pressurization when the hatch is closed.

#### **OPERATION**

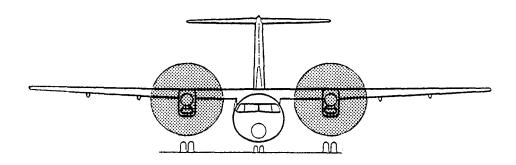
To open the Flight Compartment escape hatch, rotate the handle 72 degrees counterclockwise. A mechanical linkage connected to the handle rotates the torque tube and the rollers move forward in the fittings where they are supported by the spring—loaded detents. Controlled by the geometry of the torque tube and the rollers, the hatch pivots about the rear support fittings and opens approximately one inch at the front. Opening the hatch permits depressurization and provides a modest amount of ventilation to the Flight Compartment.

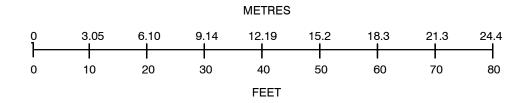
A downward pull on the handle of approximately 40 pounds releases the rollers against the action of the forward locking and release detent springs. The hatch may then be completely removed.



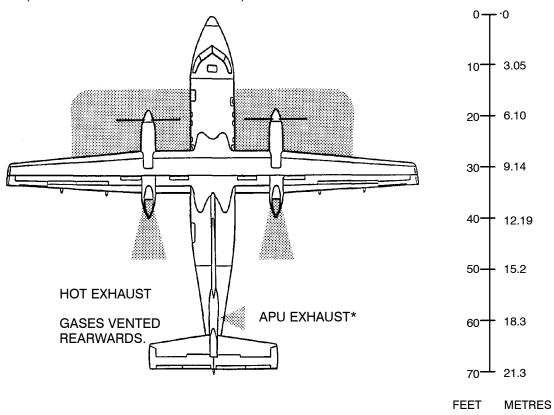
#### FLIGHT COMPARTMENT EMERGENCY ESCAPE HATCH







# PERSONNEL DANGER AREAS (WHEN ENGINES ARE OPERATING)



\*NOT ALL AIRCRAFT

#### **ENGINE DANGER AREAS**

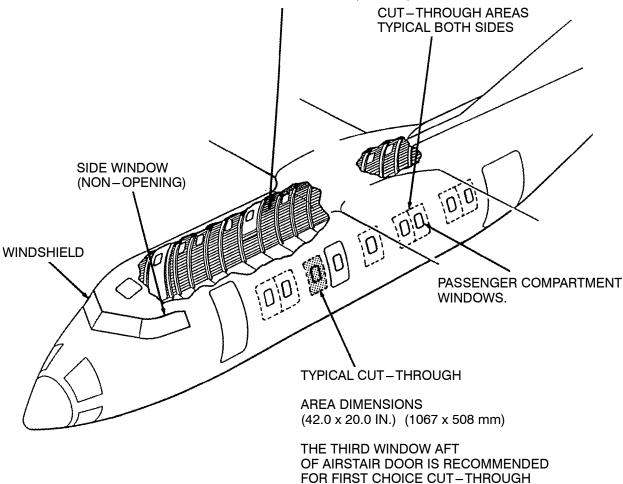


#### NOTE:

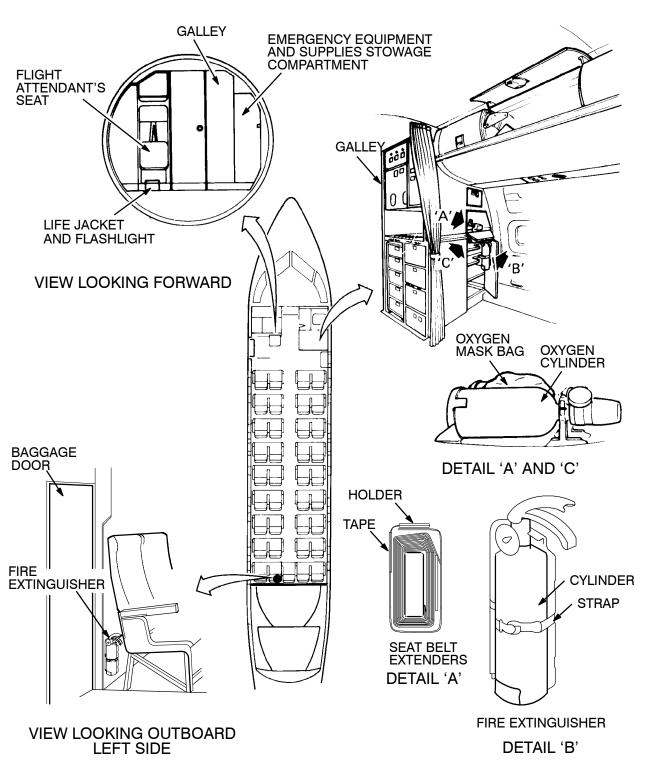
"CUT-THROUGH" AREAS REQUIRE PORTABLE METAL-CUTTING EQUIPMENT. IT IS RECOMMENDED THAT MAJOR EFFORT TO GAIN ACCESS BE DIRECTED TO HATCHES AND DOORS DUE TO THE TYPE OF STRUCTURE AND POSSIBLE INJURY TO PERSONNEL WITHIN.

#### INTERIOR CONSTRUCTION

- -STRINGERS RUN ABOVE & BELOW WINDOWS
- -SKIN THICKNESS .060 IN. (1.50mm).



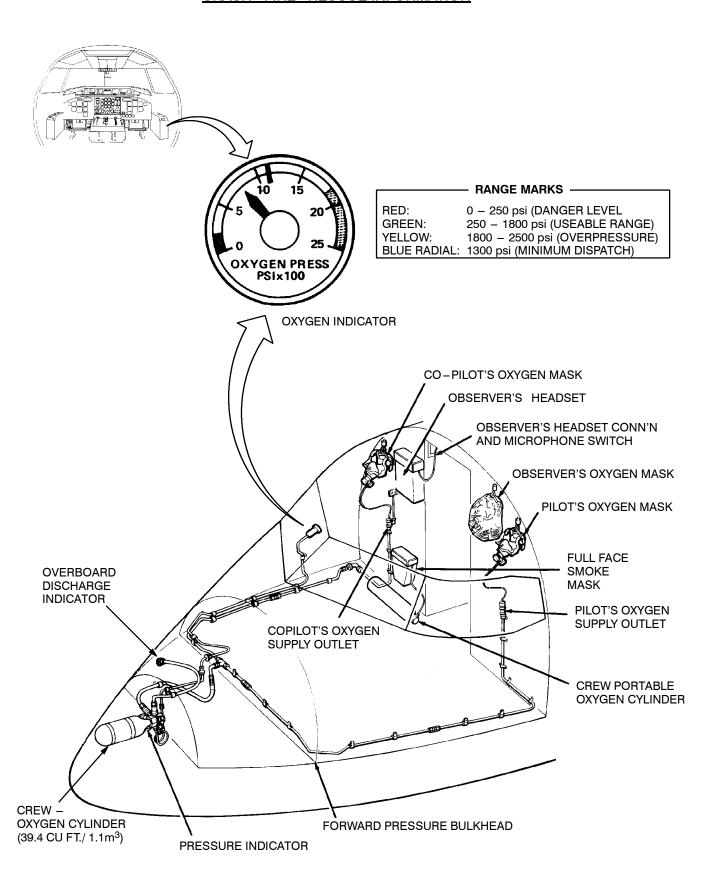
(ALTHOUGH ANY WINDOW IS SUITABLE).



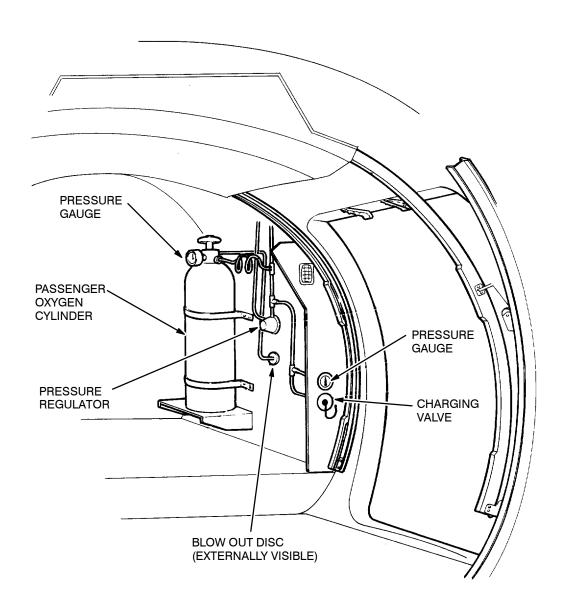
\*NOTE: MAY VARY WITH AIRLINE & CONFIGURATION

#### **FUSELAGE SAFETY EQUIPMENT LOCATIONS**

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#### **CREW OXYGEN LOCATIONS**

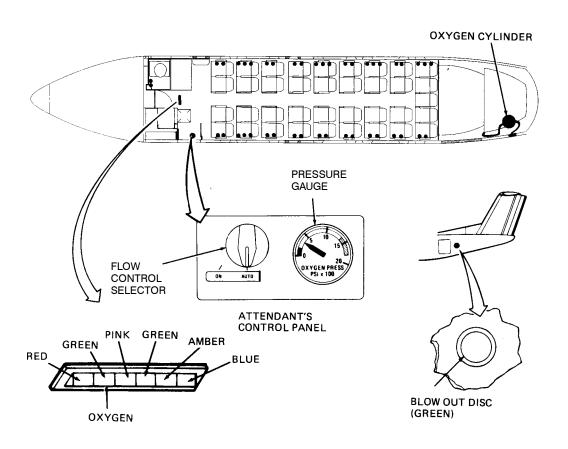


**BAGGAGE COMPARTMENT** 

PASSENGER OXYGEN CYLINDER (OPTIONAL)

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#### PASSENGER OXYGEN AUTOMATIC PRESENTATION SYSTEM (OPTIONAL)



## CRASH-FIRE-RESCUE INFORMATION

## **FIRE CONTROL RECOMMENDATIONS**

FIRE AREA EXTINGUISHER TYPE				NOTES
	PREFERRED	ALTERNATIVE	AVOID	110120
ENGINE FIRES	HALON 1211	FOAM	CO <sub>2</sub> CAN DAMAGE ENGINE. DRY CHEMICAL IS CORROSIVE.	
FUEL FIRE	1. DRY CHEMICAL POWDER FOR LEAKING FUEL. 2. WATER FOG OR FOAM ON GROUND SPILL AREA.			
WHEEL FIRE	DRY CHEMICAL POWDER	HALON 1211	CO <sub>2</sub> – WHEEL BREAKAGE IS POSSIBLE.	1. WHEELS ARE EQUIPPED WITH FUSIBLE PLUGS WHICH WILL BLOW AT 288°F (142°C). 2. APPROACH LANDING GEAR FROM FORWARD OR AFT. STAND UPWIND OF FIRE TO AVOID 'SKYDROL' FUMES. ALL WHEELS ARE FORGED ALUMINUM.
ELECTRICAL FIRE	HALON 1211	DRY CHEMICAL POWDER/CO <sub>2</sub>	WATER	
HYDRAULIC SER- VICE BAY FIRE	HALON 1211	DRY CHEMICAL POWDER/CO <sub>2</sub>	WATER	
ELECTRICAL/ ELECTRONIC SERVICE BAY FIRE	HALON 1211	DRY CHEMICAL POWDER/CO <sub>2</sub>	WATER	
GALLEY FIRE	HALON 1211	DRY CHEMICAL POWDER	WATER	
FLIGHT COMPART- MENT FIRE	HALON 1211	DRY CHEMICAL POWDER	WATER	
CABIN COMPART- MENT FIRE	HALON 1211	DRY CHEMICAL POWDER	WATER	
CARGO COM- PARTMENT FIRE	HALON 1211	DRY CHEMICAL POWDER/CO <sub>2</sub>	WATER	



# FOR BOTH ENGINES

IMP GAL. US GAL. LITRES 9.24 11.09 42

HYDRAULIC FLUID ——————						
		IIIDIIAGEIG	. 2015			
	RESERVOIR	IMP QTS	US QTS	LITRES		
	NO. 1 SYSTEM	2.20	2.68	2.50		
	NO. 2 SYSTEM	4.31	5.19	4.90		
	NOSE	1.06	1.25	1.20		
ALL SYSTEMS USE PHOSPHATE ESTER-BASED						

TYPE IV FLUID eg. SKYDROL

NO.2 SYSTEM
HYDR. RESERVOIR

NO.1 TANK OVERWING
REFUEL POINT

NO.1 TANK OVERWING
REFUEL POINT

NO.1 SYSTEM
HYDRAULIC RESERVOIR

#### - TOTAL FUEL CAPACITY -

BASED ON JET A-1 S.G. OF 0.816 (SINGLE TANK DIVIDE BY 2)

| IMP US | LB KG GAL GAL LITRES | STANDARD FUEL TANKS | 5765 | 2614 | 705 | 846 | 3203 | EXTENDED RANGE TANKS | 10,433 | 4732 | 1276 | 1532 | 5800 |

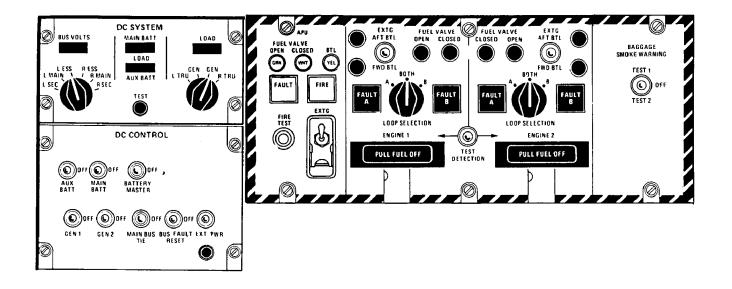
#### FLAMMABLE MATERIAL LOCATIONS



#### NOTE:

- \* APPROX. 2 FT. LOWER IN WHEELS-UP SITUATION.
- \* THERE ARE NO EXTERNALLY ACCESSIBLE ENGINE FIRE ACCESS PANELS.

  INTAKE TO GROUND LEVEL (9.58 FT.) (2.92m)

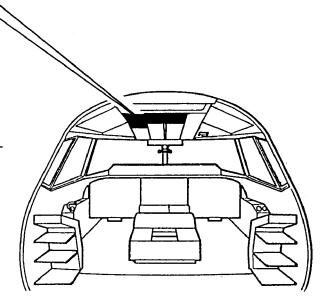




- A. ELECTRICAL POWER MUST BE PRESENT
- B. PULL "PULL FUEL OFF" HANDLE.
- C. SELECT "EXTG" TOGGLE SWITCH TO EITHER "AFT BTL" OR "FWD BTL".

#### REMOVING ELECTRICAL POWER

- A. SELECT "BATTERY MASTER" SWITCH TO "OFF".
- B. SELECT "AUX BATT" AND "MAIN BATT" SWITCHES TO "OFF".
- C. SELECT "EXT PWR" TO "OFF".



# ENGINE FIRE EXTINGUISHER AND BATTERY POWER SWITCH LOCATIONS