IMPORTANT NOTE

This Ground rescue booklet provided by Airbus Helicopters gives general and safety information concerning the H 160. This document shall only be considered as a support for users to prepare their own documentation. It will not be systematically updated in line with the aircraft modification process. Depending on the country and the modification status of the helicopter, systems may differ in their location. This information booklet is provided free of charge by Airbus Helicopters. Wide-spread dissemination to firefighters and rescue teams around the world is strongly encouraged. Copies can be downloaded from the Airbus Helicopters web site.

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1 GENERAL INFORMATION

MAXIMUM GROSS WEIGHT
- On the ground .............................................................................. 6100 kg

OCCUPANCY
- Crew .................................................................................. one or two pilots
- Passenger transport ............................................................. up to 12 Pax

DIMENSIONS
- Fuselage length ................................................................. 14.00 m
- Fuselage width ....................................................................... 2.75 m
- Rotor diameter ....................................................................... 13.40 m
POWERPLANTS ........................................... Two SAFRAN ARRANO 1A

FUEL CAPACITY
- With gravity or pressure refueling.................... about 1400 L (1120 kg)
OIL CAPACITY

- Main gear box .......................................................... Max. level = 25.20 liters

Main Gear Box

- Tail gear box .............................................................. Max. level = 0.550 liters

Tail Gear Box
HYDRAULIC FLUID CAPACITY

- Types of oil:
  MIL-PRF-83282 Aero-Shell Fluid 31
  (Flash point 238° C - Fire point 251°C)
  or
  MIL-PRF-87257
  (Flash point 170° C - Fire point 180°C)

- LH side
  - MHS1 hydraulic tank capacity: up to 2.4 liters
- RH side

- MHS2 hydraulic tank capacity: up to 2.2 liters

Main rotor actuator

Hyd. pump 2

Emergency pump

To tail rotor actuator

Heat exchanger

Main rotor actuator

MHS 2

Accumulator
COMPOSITE USAGE

Identification of materials:
- Glass Fiber Reinforced Plastic
- Carbon Fiber Reinforced Plastic
- Aluminum
- Titanium

Main body structure:
- Upper fuselage
- Front fuselage
- Shell
- Bottom fuselage
- Rear fuselage
- Tail fin
- Stator
- Tail boom
AIRCRAFT MAY BE CHARGED WITH STATIC ELECTRICITY. WEAR GLOVES AND IF POSSIBLE DISCHARGE THE AIRCRAFT BY ESTABLISHING AN ELECTRICAL GROUND.

DANGER AREA WITH ROTOR TURNING
EMERGENCY FLOATATION GEAR

FRONT/SPONSON BALLOONS MAY INFLATE.
PITOTS

PITOTS ARE HEATED IN FLIGHT AND CAN CAUSE BURNS.

**WARNING**

HOT SURFACE
DO NOT TOUCH

RH Pitot static

Emergency Pitot

LH Pitot static
LUGGAGE HOLD

The vast luggage hold is accessible from both sides of the helicopter.
BATTERIES

If batteries have to be removed from the aircraft:
- Make sure the aircraft is not energized,
- Connect the grounding cable from the grounding point to the aircraft grounding point,
- Open the 2 lower latches and the 2 upper latches,
- Slide the radome frontwards with the use of the handle in lower part of the radome,
- Rotate the radome upwards,
- Take the rod out of its rod retainer and place it in the locking retainer installed on radome to secure the open position.

Radome closed, open and locking rod.
- Disconnect the electrical connectors.
- Close the radome cowling.
- Disconnect the grounding cable from the aircraft grounding point.

GROUND POWER UNIT (GPU) PLUGING

Ground Power Unit (GPU)

Electrical power receptacle
FIREFIGHTING RECOMMENDATIONS

GENERAL

1) GROUND STAFF MUST BE IN CONTACT (RADIO / VISUAL SIGNS) WITH THE AIRCREW IN ORDER TO COORDINATE AND SECURE THE INTERVENTION.
2) GROUND STAFF MUST WEAR ADEQUATE PROTECTIVE EQUIPMENT.

FIRE AROUND THE AIRCRAFT

If possible wait for the rotor full stop.

FUEL LEAKAGE ALONG THE AIRCRAFT STRUCTURE AND/OR PRESENCE OF FIRE ON GROUND MUST BE FOUGHT FIRST WITH FOAM.

- Cool with foam or water spray external adjacent structures.
FIRE IN THE FRONT COMPARTMENT

SLOWLY OPEN THE FRONT COMPARTMENT (RADOME) COWLING TO AVOID A SUDDEN SUPPLY OF OXYGEN AND A FLASH-OVER.

Radome opening procedure:
- Open the 2 lower latches and the 2 upper latches.
- Slide the radome frontwards with the use of the handle in lower part of the radome.
- Slowly rotate the radome upwards.
- Take the rod out of its rod retainer and place it in the locking retainer installed on radome to secure the open position.

- Saturate the compartment with the extinguishing agent (gaseous extinguisher recommended).
FIRE IN THE ENGINE COMPARTMENT

1) WAIT FOR ENGINES AND ROTOR TO COME TO A COMPLETE STOP.
2) THE TEMPERATURE OF THE ENGINE EXHAUST NOZZLE COULD BE VERY HOT (UP TO 600°C).

- Spray the extinguishing agent (gaseous extinguisher recommended) between engine exhaust and engine nozzle.
- Proceed in circular movements until saturation.
FIRE IN THE MAIN GEAR BOX (MGB) COMPARTMENT

WAIT FOR ENGINES AND ROTOR TO COME TO A COMPLETE STOP.

Possible access for extinguishing

- Spray the extinguishing agent through the easiest available opening (gaseous extinguisher recommended) to saturate the MGB compartment.

DO NOT TRY TO OPEN THE COWLINGS

- In case of severe flash-over, use foam.

Views of the MGB cowlings in closed and open position (for information)
FIRE IN THE LUGGAGE HOLD

REMINDER: DO NOT TRY TO OPEN THE LUGGAGE HOLD WITH THE ROTORS SPINNING.

RH cargo door (closed)
- Saturate the luggage hold with the extinguishing agent (gaseous extinguisher recommended).
EMERGENCY ACCESS
- Crew and passenger emergency exits:

COCKPIT DOORS
LH cockpit door
RH cockpit door
External components:

Internal components:
Procedures to use the crew emergency exits (Cockpit windows):

- Jettison from outside (all windows):
  
  Push the red button

  Handle Ejection  Unroll the safety strap  Unlock the jettisonable window

- Jettison the cockpit window from inside:

  Set free the handle  Unroll the safety strap  Unlock the jettisonable window
CABIN WINDOWS

Procedures to use the cabin emergency exits:
- Jettison from outside (all windows): Refer to previous page.
- Jettison intermediate and cabin windows from inside:
  - Set free the handle and break the breakable parts
  - Unroll the safety strap
  - Unlock the jettisonable window
3 SAFETY INFORMATION - INSIDE THE AIRCRAFT

EXTINGUISHER LOCATIONS

- In the RH cabin (2nd seat raw)
- In the cockpit
- Cabin view
- Front view
- Pressure gauge
- Portable fire extinguisher
FIRST AID KIT LOCATION

- In the back of the pilot seat as shown hereafter:
THE FOLLOWING PROCEDURES ARE TO BE USED IN CASE OF EMERGENCY ON GROUND ONLY IF PILOTS ARE INCAPACITED.

**ELECTRICAL SHUTDOWN**

- **EMERGENCY CUT-OFF (ECO)**

  - Pull the Emergency Cut-Off (ECO) to deactivate the electrical power.
ENGINE SHUTDOWN

- Either SOV (1 or 2) **CLOSE** / NORM control switches.

- or ENG (1 or 2) **OFF** / IDLE / FLIGHT control switches

  - Pull general ECO handle or,
  - Engine control switches **OFF** or,
  - LH+RH fuel SOV switches **CLOSE**
- **LIFT** the guard and **PRESS** to extinguish, then:

as soon as the bottle 2 is empty.
ROTOR BRAKING

ENGINES MUST BE STOPPED BEFORE APPLYING ROTOR BRAKE.

NR < 50% ==> ROTOR BRAKE CAN BE APPLIED.

Display on VMS-MAIN page or on FND:

No ROTOR BRAKE message
ENGINE FIRE DETECTION AND EXTINGUISHING SYSTEM

The system comprises detection and extinguishing circuits with two Halon fire extinguishers.
ENGINE 1 OR 2 FIRE WARNING LIGHTS

Steady:  
Fire detected

Flashing:  
Fire detected and extinguishing conditions are met

Fire detected with 1st bottle empty  
Both bottles empty

PROCEDURE IN CASE OF ENGINE FIRE DETECTION

Fight fire from outside with a ground fire extinguisher if possible. Otherwise, use the "IN FLIGHT" fire extinguisher following procedure.
PARK BRAKE ............................................................................................................. ON

On affected engine:
- Fuel SOV ................. CLOSE:
- Engine control switch .... OFF:

Other engine:
- Engine control switch .... OFF:

Rotor brake:
- Apply ............ NR below 50%

PRESS ........ 1ST SHOT:

If starts blinking again after 1 min:

PRESS ........ 2ND SHOT:

ECS ................................................................................................................................ OFF
Rotor brake (NR below 50%) ........................................................................................ APPLY
DC GPU (if coupled) ...................................................................................................... OFF
BAT1 + BAT2 .............................................................................................................. OFF
Aircraft evacuation ...................................................................................................... PERFORM
## PROCEDURE IN CASE OF ELECTRICAL FIRE/SMOKE DETECTION

1. PARK BRAKE  
2. EMER CUT OFF 1+2  
3. ENG1 + ENG2  
4. DC GPU (if coupled)  
5. BAT1 + BAT2  
6. Emergency evacuation  
7. GPU (if connected)  
8. Fire  
9. Avoid as much as possible inhaling smoke and/or extinguisher agent.
SAFETY BELTS
- Crew seats:

To release the buckle:
• Release the mechanism by twisting the actuator in either direction until the latches are released and ejected from the box.
• Release the mechanism of the dual motion buckle by pushing the yellow button and then by twisting the lever in either direction until the latches are released and ejected from the box.
- Passengers seats:

To release the buckle:
  • Lift or turn to unlock