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APPENDIX

DESCRIPTION OF OPTIONAL EQUIPMENT ITEMS

This appendix, issued to supplement the information given in the Flight Manual, may be modified by specific amendments independent of those issued against the basic Flight Manual.

IMPORTANT NOTE

This document supports the helicopters delivered by both AEROSPATIALE and EUROCOPTER FRANCE.
Revisions to this manual are made by EUROCOPTER FRANCE using the same procedures as AEROSPATIALE.



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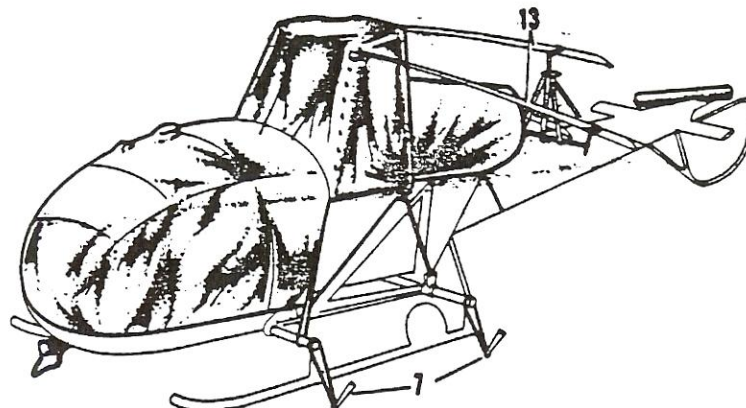
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1 - PARKING

Operations to be carried out.

Parking in the open and mooring with skid-type landing gear
blades folded

	OPERATIONS	In the open			
		Slight wind	Strong wind	Rain	Hot sun (a)
1	Aircraft into wind				
2	Battery switch OFF				
3	Air intake blanks on				
4	Tail pipe blank on				
5	Pitot head cover on				
6	Cabin cover on (do not overtighten the straps) (see note d)				
7	Aircraft moored cables pickets				
8	Rotor brake applied				
9	Main rotor blade covers on (See note b)				
10	Main rotor blades tied down				
11	Tail rotor locked				
12	Tail rotor cover on				
13	Blades folded				
14	Transmission cover on				
15	Engine cover on (see note c)				

NOTES : a. In hot sun, remove sliding doors.

b. In icing conditions, coat the blades with ethyl-glycol or glycerine.

c. Install engine cover if aircraft is parked momentarily in rain.

d. Before installing the cabin cover, ascertain that side slip indicator is engaged in the slot provided.

2 - HEATING AND DE-MISTING INSTALLATION (315A-73-12-000)A - DESCRIPTION

Heating and de-misting are carried out by means of an installation which blows a hot air (P2) flow, picked up at the output of the turbine engine compressor, into the cabin.

This installation mainly consists of :

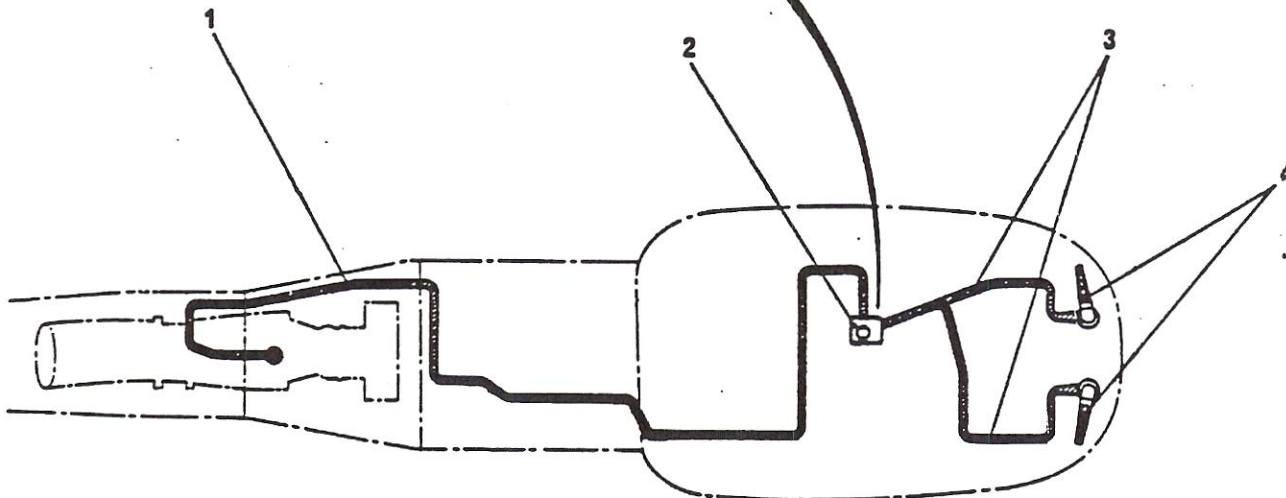
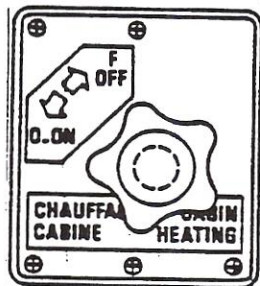
- a line (1) connecting the compressor to cock (2)
- a control cock (2) fitted on the cabin floor, on the left of the pilot's seat.
- a duct assembly (3) leading the hot air to diffusers (4).
- two diffusers (4) located above the floor and used for heating the cabin and de-misting the canopy.

B - OPERATION

Before starting, ensure that the cock is in the closed position.

In flight, open the cock as required to obtain the ambient temperature desired.

In case of operation of the rescue hoist, the heating system shall not be used in order to keep the whole P2 pressure available for the hoist system.



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3 - WINDSCREEN WIPER INSTALLATION (315A-73-04-100)A. DESCRIPTION

The installation comprises an electrical motor driving a windscreen wiper installed on the canopy, on the pilot's side.

The system is controlled from the overhead panel, by means of a circuit breaker and a switch.

B. OPERATION

To start the system :

- Engage the "ESS. GLACE" (WIND. WIPER) circuit-breaker.
- Set the "ESS. GLACE" (WIND. WIPER) switch to the selected position :
"LENT" or "RAPIDE" (SLOW or FAST).

4 - VACUUM TYPE GYROSCOPIC INSTRUMENTS (315A-73-05-200)A - DESCRIPTION

The gyroscopic instrument installation comprises a vacuum circuit connected to a gyroscopic horizon and to a directional gyroscope, both fitted on the instrument panel.

1. Vacuum system (Figure 1)

Vacuum is obtained by means of a venturi tube (3) supplied with P2 pressure by the engine.

The circuit is connected to the instruments via a regulating valve (2) and a bleed valve (4).

A pressure switch (5), submitted to the vacuum in the system, causes the "VSV" (blind flying) warning light to come on when the vacuum pressure is not sufficient to ensure a proper operation of the instruments.

2. Gyroscopic horizon (Figure 2)

The gyroscopic horizon gives the pilot a true vertical reference.

The front face, illuminated by means of a lighting bridge, includes :

- a fixed silhouette (1)
- a horizon bar (6)
- a roll index (5) moving relative to a graduated dial (4)
- a Knob (3) which makes it possible :
 - . when rotated, to set the silhouette to 8° nose up and 7° dive.
 - . when pulled, rapid resetting of the horizon
 - . when pulled and rotated by 1/4 turn to the right, to cage the horizon which causes flag (2) to appear.

3. Directional gyroscope (Figure 3)

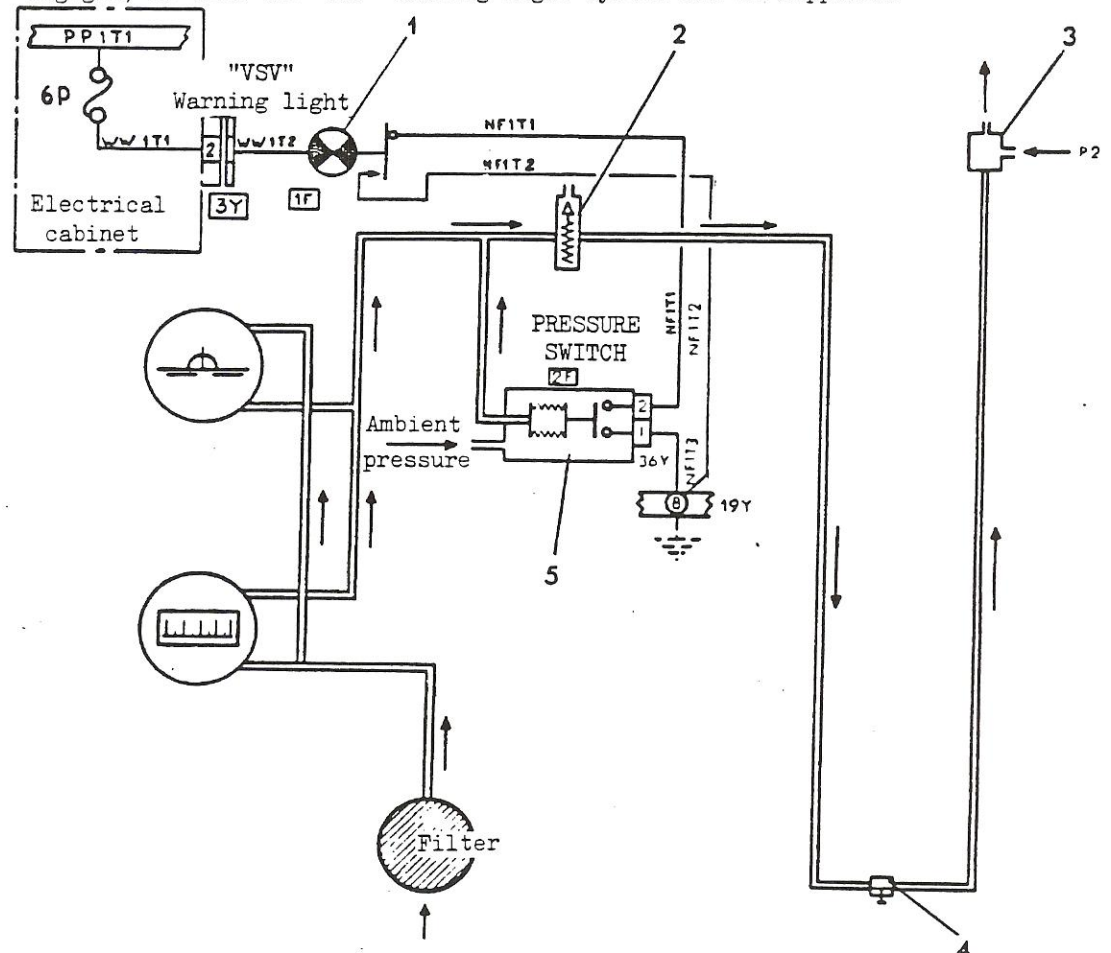
The directional gyro provides the pilot with heading data.

The front face, illuminated by a lighting bridge, includes :

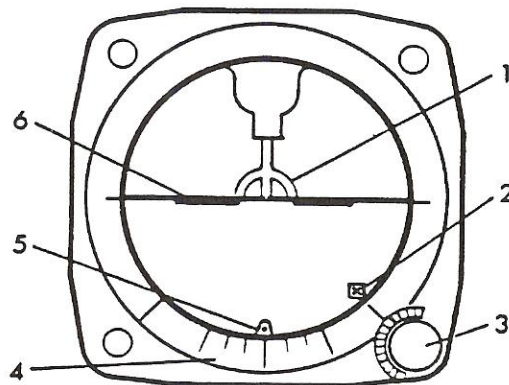
- a Knob (3) which allows the "REFERENCE HEADING" to be set on the dial (1)
- a Knob (4) which makes it possible :
 - . when pushed, to cage the gyro assembly, thus causing flag (2) to appear.
 - . when pushed and rotated, to reset compass card (5)

B. OPERATION

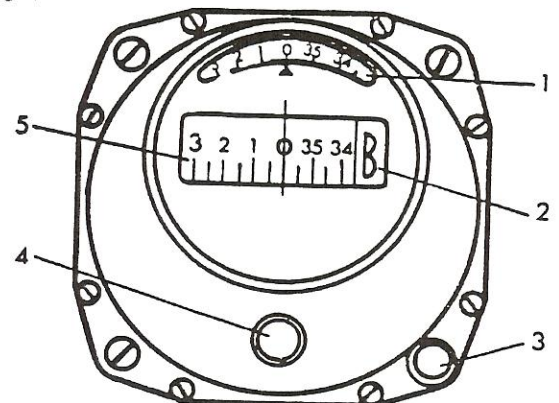
Instruments are permanently in operation when the engine is running ; however, make sure that the circuit breaker on the overhead panel is engaged, so that the "VSV" warning light system can be supplied.



Functional diagram of the gyroscopic instrument installation
Figure 1



Gyroscopic horizon
Figure 2



Directional gyroscope
Figure 3

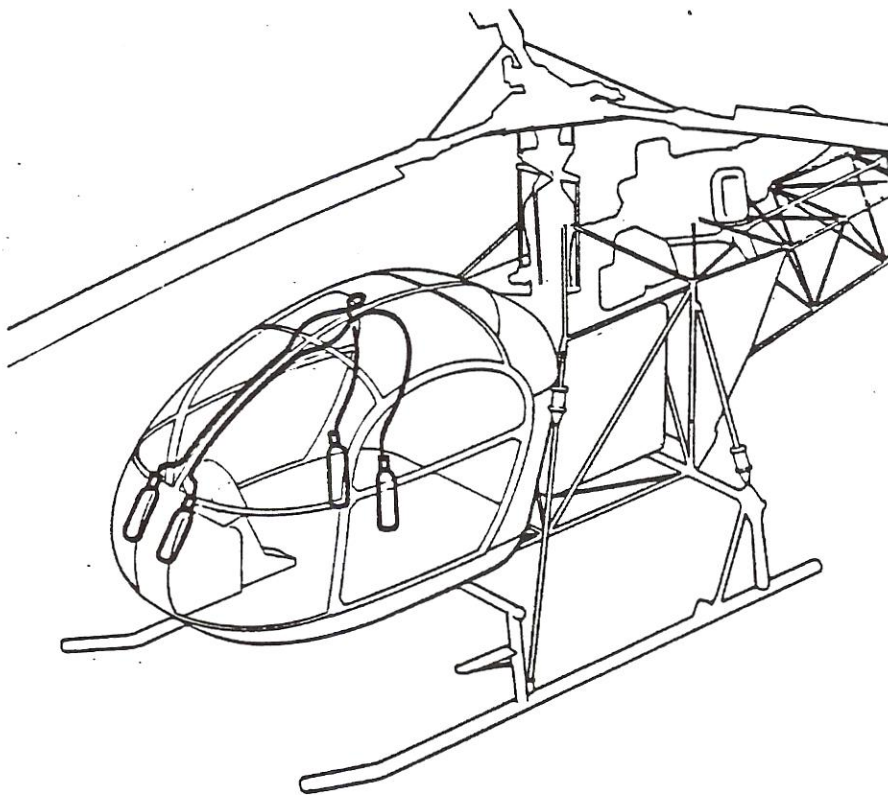
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5 - OXYGEN INSTALLATION (315A-73-01-100)A. DESCRIPTION (figure 1)

This installation makes high altitude flying possible for two persons.

The installation consists of two independent systems, each one including :

- 2 oxygen cylinders, one secured to the canopy behind the instrument panel, the other one behind the forward seat inboard.
- A connection line for each cylinder.



Oxygen installation

B - OPERATIONAL DATA

- Charging pressure at 15°C : 150 bars
- Supply pressure to the regulator mask : 5 ± 2 bars
- Temperature of operation : - 40°C to + 60°C

C - OPERATION

- Each cylinder is opened and closed by means of a two-position push-pull valve ("ON" and "OFF"). As cylinders are connected two by two (pilot's side and co-pilot's side), they should be opened simultaneously for use of the oxygen system.
- Each cylinder is fitted with a filler gauge which warns the pilot (or co-pilot) of the quantity of oxygen left and available to him.
- Oxygen masks are preferably fitted to the rear cylinders (use one of the two unions available on the L.P. stage of the cylinder).

D - SAFETY INSTRUCTION

CAUTION, RISK OF EXPLOSION : DO NOT SMOKE IN THE CABIN. NEVER TOUCH THE CYLINDERS WITH HANDS CONTAMINATED WITH OIL, GREASE OR FUEL.

6 HEATED PITOT HEAD (315A 73-43-200)

A - DESCRIPTION

The "PITOT head heating" installation consists of :

- a tube in which an electrical resistor is embodied,
- a pressure line connected to the total pressure circuit of the aircraft,
- an electrical system used for heating of the total pressure head (4) and for failure warning.

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B - OPERATION

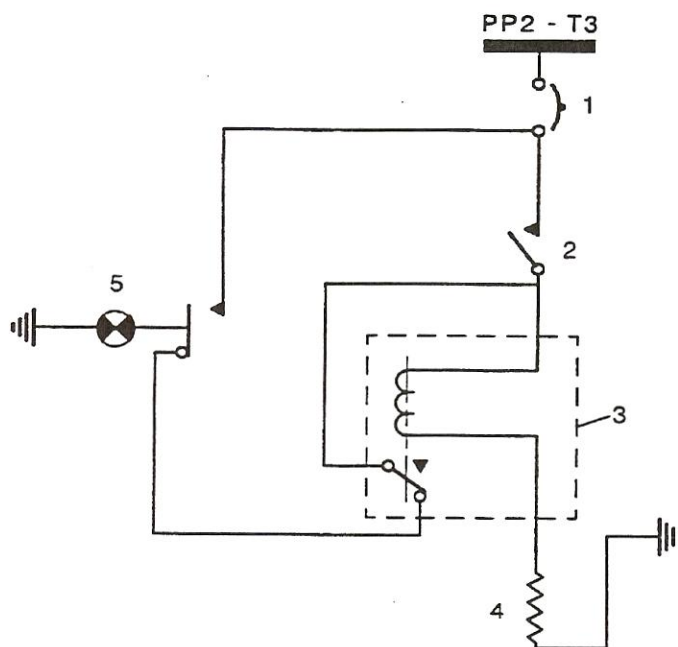
On the overhead panel of the cabin :

- Engage the "CH.PITOT" (PIT.HTG) circuit breaker (1),
- Set the "CH.PITOT" (PIT.HTG) switch to the "M" (ON) position (2).

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If the heating resistor is broken or if there is any defect in the supply system, the current detector relay (3) causes the testable "CH.PITOT" (PIT.HTG) warning light (5), located on the instrument panel, to come on.

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7 - ANTI-COLLISION LIGHTS (315A-73-43-000)A - GENERAL (Figure 1)

Anti-collision lights are used for mutual location of aircraft, at long distance. The aircraft is fitted with two anti-collision lights, one (2) located on the lower structure and the other one (1) at the top of the cabin. They are controlled by means of a three-position switch : "ECL. EXT. - A - FEUX POS." (EXT. LTS. - OFF - POS. LTS).

B - DESCRIPTION

Each anti-collision light consists of :

- a red glass globe containing two 40-Watt lamps with embodied reflectors. These lamps send out two opposite beams and rotate at about 45 r.p.m.
- a motor equipped with a noise-suppressor
- a cover protecting the driving assembly and fitted with a supply connector.

C - OPERATION (Figure 1)

- Anti-collision lights are lit by means of an electrical circuit supplied with 28 Volt d.c. through bus bar PP2T3 via a "FEUX POS." (POS. LTS.) circuit breaker (7) and a "FEUX POS. - A - ECL. EXT" (EXT. LTS - OFF - POS. LTS.) switch (6), both of them located on overhead panel (5).
- After engaging circuit-breaker (7), set switch (6) to the "ECL. EXT." (EXT. LTS.) position, which causes :
 - .. the position light and anti-collision light circuits to be energized ;
 - . relay (4) to be supplied ; through its "make-contacts" this relay applies + 28 V d.c. to the motor and lamps of the anti-collision lights.

NOTE :

Switch (6) allows :

- anti-collision lights and position lights to be supplied, when set to the "ECL. EXT." (EXT. LTS.) position ;
- position lights to be supplied, when set to the "FEUX POS." (POS. LTS.) position ;
- position and anti-collision lights to be switched off, when set to the "A" (OFF) position.

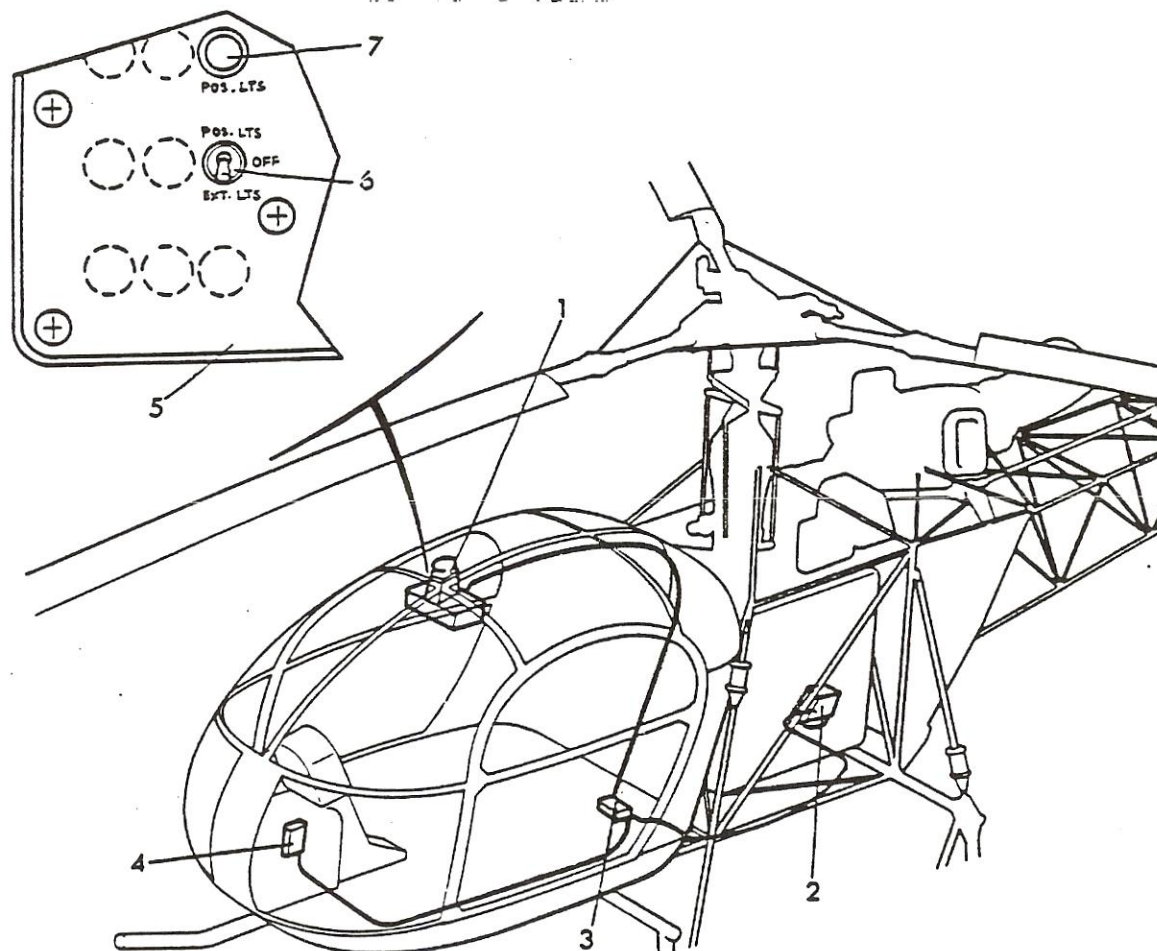


Figure item	Description	Location
1	Upper anti-collision light.	On cabin canopy.
2	Lower anti-collision light.	Under rear lower structure
3	Electrical connector.	Cabin rear bulkhead
4	Anti-collision light switching relay.	Forward housing, behind control pedestal.
5	Cabin overhead panel including :	
6	"EXT. LTS.-OFF-POS. LTS". switch.	
7	"POS. LTS" circuit-breaker.	

Anti-collision light installation
Figure 1

8 MSI LOAD MONITOR (315 A MR 0740)

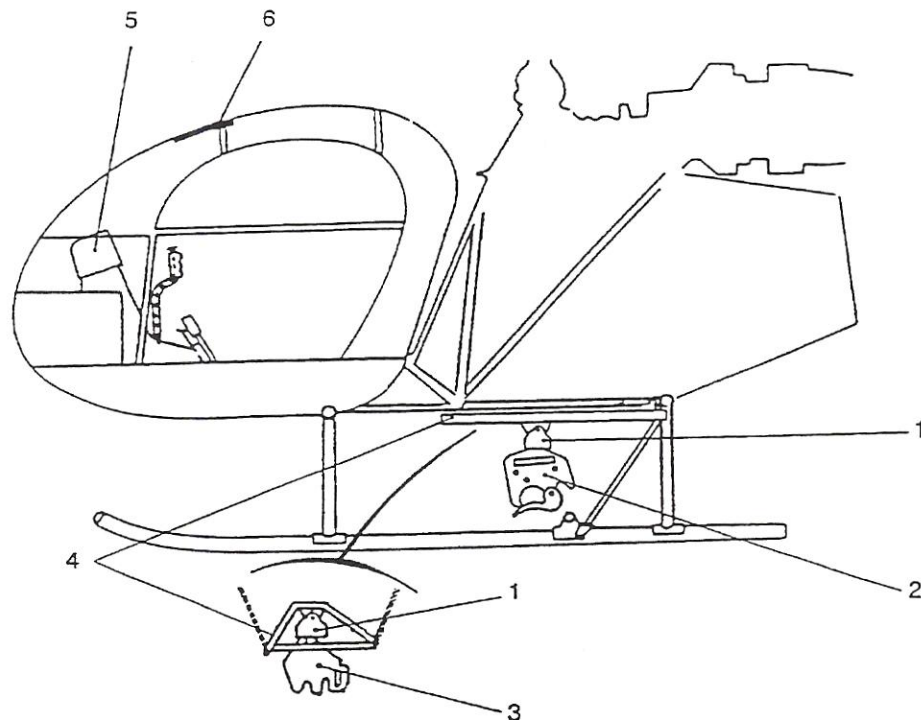
The MSI load monitor is an optional item of equipment completing the CARGO SWING type external load carrying installation.

It enables the pilot to know the value of the slung load. This data shall not be used as main parameter or means for checking performance..

The equipment consists mainly of :

- a load sensor (1) located between the ERC (2) or SIREN (3) release unit and the frame yoke (4),
- a load indicator (5) visible by the pilot,
- an electric circuit protected by a circuit-breaker "SCALE" located on the overhead panel (6).

Limitations, normal and emergency procedures as well as performance data are not affected by this installation.



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9 EMERGENCY LOCATOR TRANSMITTERA GENERAL

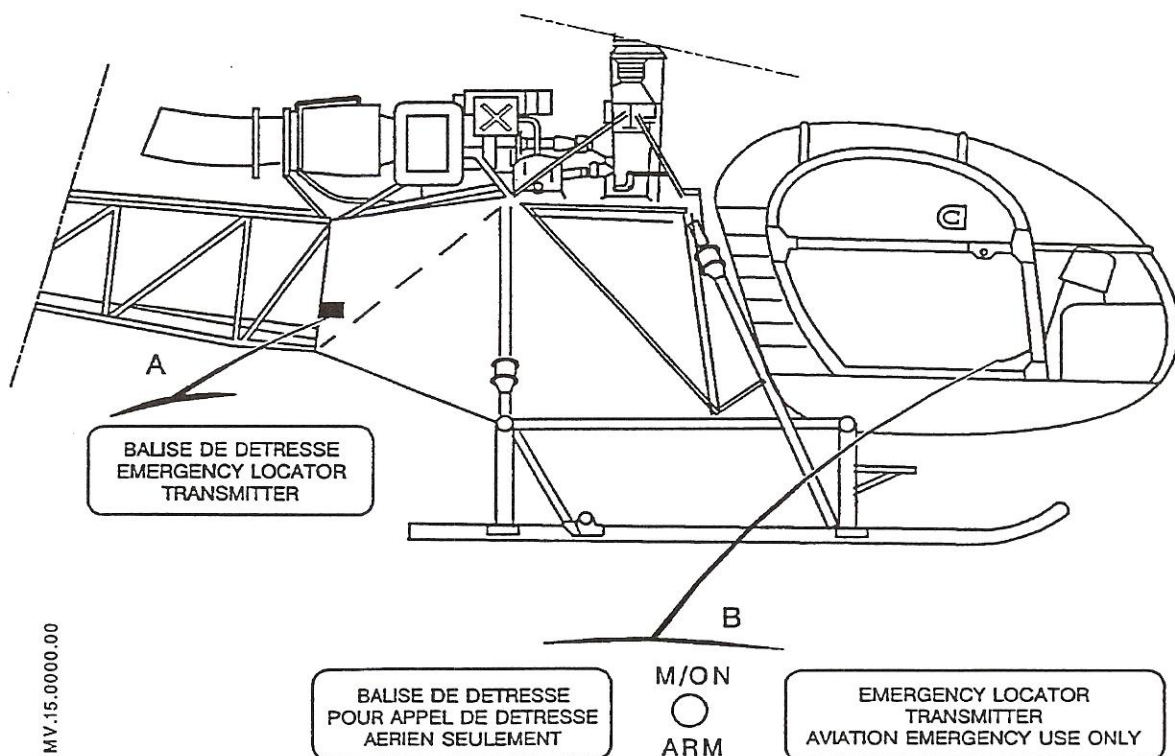
The JOLLIET J.E.2 emergency locator transmitter delivers radio beacon signals simultaneously on the international distress frequencies (121.5 MHz and 243.0 MHz) to aid helicopter search and rescue operations.

The unit operates automatically in the event of crash impact. It may be operated manually by means of a MANU-OFF-AUTO switch on the transmitter front panel, or by means of an "ON-ARM" or "M-ARM" remote control switch.

B COMPONENT LOCATIONS

The installation comprises :

- A transmitter located in the RH baggage compartment.
- An external identification label (Detail A).
- A control switch located on the console or instrument panel within reach of the pilot (Detail B).
- An antenna located on the tail boom.



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C CHECKING PROCEDURE**1** Pre-flight Inspection

Check that :

- remote control switch is set to "ARM"

On transmitter check that :

- MANU-OFF-AUTO is set to AUTO and
- RESET pushbutton is in.

2 Pre-flight Checks

- Select the international distress frequency on the aircraft VHF or UHF system.
- Set switch beneath instrument panel to "M" (ON) for approximately one second.
- The transmitter output signal should be audible in the headphones.
- Set switch to "ARM".

3 Post-flight Check

After landing, ensure that the emergency locator transmitter has not accidentally been switched on.

D OPERATING PROCEDURE**1** Automatic Operation

The transmitter is actuated automatically in the event of an impact of at least 5 g , assuming the switch is set to "ARM".

NOTE : The impact detector may be reset by means of the "RESET" pushbutton on the transmitter front panel; the rest pushbutton also stops the transmitter output signals if the unit is operating.

2 Manual Operation

The unit may be actuated manually by setting the switch to "M" (ON).

3 Portable Operation

The transmitter may be used on the ground as follows :

- Remove the transmitter from its mount.
- Select an unobstructed area.
- Extend the built-in antenna.
- Place the unit upright with the antenna on top.
- Switch on the transmitter by setting the MANU-OFF-AUTO switch to MANU.

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